



PERCEIVED VALUE AND SATISFACTION: MEDIATION EFFECT ON SERVICE QUALITY DIMENSIONS AND LOYALTY

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Abstract:

Higher education institutions need to establish long term relationships with their stakeholders. Quality Education helps the higher education institutions to attract best students. Quality of education depends on the perception and satisfaction of the stakeholders. Service quality depends on various factors like infrastructure, quality of teaching staff, quality of non-teaching staff and various services provided by the institutions. These factors are classified into support, advising, tutoring, value, satisfaction and loyalty dimensions. The author tries to analyse the role of value and satisfaction as mediators between service quality dimensions and loyalty. Data was collected from a sample of undergraduate students of colleges affiliated to Bengaluru City University. Multiple Mediator Analysis was used, the results suggested that perceived value and satisfaction do play the role of mediator between service quality dimensions and loyalty.

Keywords: Student satisfaction, Perceived Value, Loyalty, Mediator

INTRODUCTION:

Many researchers have termed service quality an 'elusive' and 'indistinct' construct that is difficult to define and measure (Bolton and Drew, 1991; Carman, 1990; Cronin and Taylor, 1992; Parasuraman et al., 1988). Lewis and Booms (1983, p. 100) was one of the first to define quality in terms of services, defining service quality as: "A measure of how well the service level delivered matches customer's expectations." Service quality is as the totality of features and characteristics of a product or service that bears on its ability to satisfy stated or implied needs (Johnson and Winchell, 1988).

Harvey and Green (1993) contend that quality in higher education is a complex and multifaceted concept and an appropriate definition is lacking. In terms of the student as the stakeholder, DeShields et al. (2005) argue that the higher education sector needs to continue to deliver a high-quality service and satisfy students in order to succeed in a competitive service environment.

Gronroos (1984) held that service quality is made up of three dimensions "the technical quality of the outcome", "the functional quality of the encounter" and "the company corporate image". He argued that in examining the determinants of quality, it is necessary to differentiate between quality associated with the

process of service delivery and quality associated with the outcome of service, judged by the consumer after the service is performed.

The present study measured the service quality of the program taking into account the quality of the Support provided, the quality of the Advising, and the quality of the Tutoring. The study also assumed that these three quality constructs had an impact on the perceived Value, Satisfaction and Loyalty. The study used four variables under each dimension. PLS path modelling was adopted to identify various paths and the effect of the dimensions on the quality.

Higher education is a major contributor in the socio-economic development of any country. India is today one of the fastest developing countries of the world. In order to achieve the higher growth rate, there is need to increase the number of institutes and also the quality of education. Bengaluru City University thus relentlessly strives to promote excellence in higher education.

Bengaluru City University was established in 2017 with 236 affiliated colleges and around 1,00,000 students. It inherits the legacy of 160 years old of Bangalore University. It offers various courses in the field of arts, science, commerce, technology, and management. It is a State Public Affiliating University carved out of the trifurcation of Bangalore University. Bangalore University was restructured into Bangalore University, Bengaluru City University and Bangalore North University. Bengaluru City University was renamed as Bengaluru City University in 2020. The University aims to encourage vibrant culture by promoting an open exchange of knowledge and ideas among academia, government, industry, community, and society¹.

REVIEW OF LITERATURE:

(Cissy J Ballen, Shima Salehi), The aim of the study “Mediation analysis in discipline-based education research using structural equation modelling: Beyond “What Works” to understand how it works and for whom.” was to conduct mediation analysis using SEM. The study recommended mediation analysis using SEM as it allows multiple regression models to be fitted to data simultaneously and test how they collectively capture variation in the data set².

Abdullah (2005 & 2006) identified 41 items in determining the service quality of higher educational institutions and grouped them into non-academic, academic, reputation, access, program and understanding as dimensions of service quality. Many researchers have extensively investigated the nature of service quality and customer satisfaction (Sanchez, et.al, 2007; Harry, et al, 2007; Kara, et al, 2005)³.

The aim of the research “Factors Driving Student Satisfaction and Loyalty in Australian Universities: The Importance of Institutional Image” conducted by (Brown & Mazzarol, 2006), was to test a customer satisfaction model of the drivers of student satisfaction and loyalty in higher education settings. The findings of the study suggested that student loyalty is predicted by student satisfaction, which is in turn predicted by the perceived image of the host university. Of most importance was the impact of the institution’s institutional image, which strongly predicted perceived value, and to a lesser extent student satisfaction⁴.

Ismail, Madi, Abdullah & Francis, 2013), conducted research on “Exploring the relationships among service quality features, perceived value and customer satisfaction” in order to explore the relationships among service quality features, perceived value and customer satisfaction in the context of Malaysia. The empirical data was collected from 102 members of an academic staff of a Malaysian public institution of higher learning using a survey questionnaire. The study concluded that the perceived value act as a partial moderating variable in the service quality models of the organizational sample⁵.

(Chen Li et al 2019) The purpose of the study “Self-esteem and problematic smartphone use among adolescents: A moderated mediation model of depression and interpersonal trust” was to investigate the roles of depression and interpersonal trust in the relationship between self-esteem and PSU among adolescents. A moderated mediation model was established, which revealed a significant negative association between self-esteem and PSU, depression mediated the relationship between self-esteem and PSU, and the influence of depression on the relationship between self-esteem and PSU was moderated by interpersonal trust⁶.

(Art van Schaaik and Adnan Noor Baloch et al 2020), The aim of the study “Mediating factors for the relationship between stress and work ability over time in young adults” was to identify how stress and work ability is mediated over time in young adults. These results indicate that work demands affecting private life and feelings of control over private life are important mediators of the relationship between stress and work ability in young adults. A well-balanced relationship between work and private life can counteract the influence of stress on work ability in this age group⁷.

(Esin Yilmaz et al 2021), A study on “Investigation of the Mediating Role of Various Variables in the Effect of Both Gender and Economic, Social and Cultural Status on Reading Literacy” was conducted to test the mediating role of the following variables: enjoyment of reading, the metacognitive strategy of summarizing, and the metacognitive strategy of reading and comprehension on both gender and economic, social and cultural status index on reading literacy. It was based on the Turkish sample in PISA 2009 and PISA 2018. The study revealed that variables contributed very little to the explained variance and hence have no mediating role⁸.

(Zhang J 2021), The study on “A moderated mediation analysis of the relationship between a high-stakes English test and test takers extracurricular English learning activities” investigated the relationship between a large-scale and high-stakes English test and test takers’ learning behaviour. The data were collected via a cross-sectional survey with 470 test takers. The results showed that test takers’ perceptions of the examination exerted direct and indirect effects on their extracurricular English learning activities, and that test takers perceived self-efficacy for self-regulated learning and academic achievement were two important factors mediating the relationship between their perceptions of the test and extracurricular learning⁹.

(Dubey P and Sahu KK 2023), the aim of the research “Mediation analysis of students’ perceived benefits in predicting their satisfaction to technology-enhanced learning” was to examine the relationship between perceived benefits as a mediator between all the TEL factors. The results of the study revealed that perceived benefits to TEL factors were significantly and positively mediated between the TEL factors such as

information quality, compatibility, resource availability, self-efficacy, subjective norms, subject interest and institutional branding and student satisfaction to TEL¹⁰.

RESEARCH GAP:

The above review of the literature reveals that the most of the studies are on technical education and gender and stress related factors used as mediators. But there is no study on understanding the loyalty of non-technical undergraduate students and also analyzing the mediation effect of satisfaction on loyalty. Therefore, in this paper, an attempt to understand perceived value and satisfaction: mediation effect on service quality dimensions and loyalty among undergraduate students in select colleges affiliated to Bengaluru City University.

OBJECTIVES OF THE STUDY

- 1) To understand the service quality dimensions of an educational service.
- 2) To analyze the role of perceived value and satisfaction as mediator between service quality dimensions and loyalty.

METHODOLOGY OF THE STUDY

The design of the present empirical study is descriptive and analytical in nature. The study attempts to analyse the dimensions of service quality and the mediator effect of perceived value and satisfaction on other dimensions and loyalty with reference to undergraduate colleges affiliated to Bengaluru City University.

SOURCES OF DATA: This study made extensive use of both primary and secondary data. Questionnaire was used to elicit information from the respondents. Secondary data was basically used to strengthen the findings of the primary data. Journals, websites, articles, annual reports, magazines, working papers, reference books formed the sources of secondary data.

SAMPLE SIZE: Primary data was collected from 527 students of Bengaluru City University. Data was collected from Government, Aided and Private Colleges based on the proportionate of each category in the total population.

RESULT AND DISCUSSION:

A sample of 600 students were picked on random basis for data collection but responses were received only from 552 respondents. The response rate was 92%. Out of the data collected 527 responses were usable for analysis. Data was collected from Government, Aided and Private Colleges based on the proportionate of each category in the total population. It covers the students of both the gender across colleges affiliated to Bangalore University. It also covers students studying in Humanities, Commerce & Management and Science Streams.

Table 1: Sample Details

Respondents	Number	Percentage
Humanities	71	13%
Commerce & Management	353	67%
Science	103	20%
Total	527	100%

The above table reveals that 67 percent of students were from Commerce & Management, 20 percent were from Science and 13 percent were from Humanities stream.

DIMENSIONS OF SERVICE QUALITY:

Exogenous latent variables (Independent):

- 1) Support: It consists of variables which included questions on infrastructure and other facilities provided by the college.
- 2) Advising: It consists of variables relating to efficiency of teaching and administrative staff.
- 3) Tutoring: It consists of variables relating to proficiency and quality of teaching staff.

Endogenous latent variables (Dependent):

- 1) Value: It consists of variables relating to development of soft skills.
- 2) Satisfaction: It consists of variables relating to expectations and satisfaction of service quality.
- 3) Loyalty: It consists of variables relating to affinity and loyalty of students towards their college.

Correlation Analysis studies the joint variation of two or more variables for determining the amount of correlation between two or more variables. In this study Correlation Analysis Technique is used to study the relationship between the dimensions of service quality.

Table 2: Correlation Analysis

Correlation Analysis	Support	Advising	Tutoring	Value	Satisfaction
Support	1				
Advising	0.73	1			
Tutoring	0.71	0.81	1		
Value	0.71	0.74	0.72	1	
Satisfaction	0.75	0.79	0.75	0.81	1

The outcome of this table shows that there is a positive and significant correlation among latent variables of support, advising, tutoring, perceived value and student satisfaction. There is strong correlation among student satisfaction and value ($r=0.81$), satisfaction and tutoring ($r=0.75$), satisfaction and advising ($r=0.79$) and satisfaction and support ($r=0.75$).

In terms of inter correlation of independent variables, the correlation matrix has shown that there are positive and strong correlations among support and advising ($r=0.71$), support and tutoring ($r=0.71$), support and value ($r=0.71$). Similarly, for advising and tutoring ($r=0.81$), advising and value ($r=0.74$), tutoring and value ($r=0.72$).

All the values are more than 0.70, indicating a very strong relationship among variables. All are significant at 1 % level.

MEDIATION ANALYSIS:

Mediation models are extended regression models making explicit the effect of particular covariates in the model. Mediation is an imaginary causal sequence in which one variable influences the second variable that, in turn influences the third variable. Mediators describe the how or why of a relationship between two other variables and are sometimes called intermediary variables since they often describe the process through which an effect occurs. This is also sometimes called an indirect effect. Mediation tests whether the effects of X (the independent variable) on Y (the dependent variable) operate through a third variable, M (the mediator). The variable 'M' is the mediator, which mediates the association between an interpreter and an outcome.

Ho 1: Perceived Value and Satisfaction does not play the role of mediator between Service Quality Dimensions and Loyalty

H1 1: Perceived Value and Satisfaction plays the role of mediator between Service Quality Dimensions and Loyalty

Mediator Independent Variable (IV) = Perceived Service Quality (PSQ)

Where PSQ = (Support + Advising + Tutoring)

Dependent Variable (DV) = Loyalty

Mediator 1 (M1) = Value Mediator 2 (M2) = Satisfaction

Table 3: Multi Linear Regression Analysis

	M1-Value	M2-Satisfaction	M3Satisfaction	M4-Loyalty	M5-Loyalty
(Intercept)	-0.08 (0.18)	-0.43 ** (0.16)	0.92 *** (0.13)	0.43 * (0.17)	0.61 *** (0.16)
PSQ	0.97 *** (0.03)	1.04 *** (0.03)		0.78 *** (0.03)	0.29 *** (0.06)
Value			0.82 *** (0.03)		0.08 (0.04)
Satisfaction					0.39 *** (0.05)
R ²	0.63	0.70	0.66	0.53	0.61
Adj. R ²	0.63	0.70	0.66	0.53	0.61
Num. obs.	527	527	527	527	527
RMSE	0.74	0.67	0.72	0.73	0.67

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

The above said table depicted the multiple linear regression analysis in order to prove the multiple mediators' effects (Value and Satisfaction) between PSQ and Loyalty.

Model 1: PSQ on Value

Model 2: PSQ on Satisfaction

Model 3: Value on Satisfaction

Model 4: PSQ on Loyalty

Model 5: Value and Satisfaction acting as M1 and M2 between PSQ and Loyalty

Model 1, PSQ on Value established unstandardized coefficient of 0.97 which is statistically significant. Model 2, PSQ on Satisfaction established coefficient of 1.04. Model 3, Value on Satisfaction established coefficient of 0.82. Model 4, explained the total effect which is 0.78 between PSQ and Loyalty. Model 5 showed, when Value and Satisfaction enacted as mediator, the total effect has come down, which showed these two variables are enacted as mediator. Role of Value between PSQ and Loyalty is 0.08 but not significant, but Satisfaction showed 0.39 which is statistically significant.

Total effect = 0.78

Total indirect effect = 0.47 (0.08 + 0.39)

Total direct effect = Total effect – Total indirect effect

Total direct effect = 0.78 – 0.47

Total direct effect = 0.31

Hence it shows indirect contribution is more than direct effect for the total effect.

Figure 1: Total Effect of PSQ on Loyalty

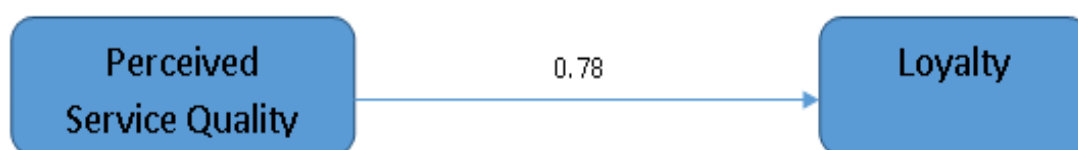
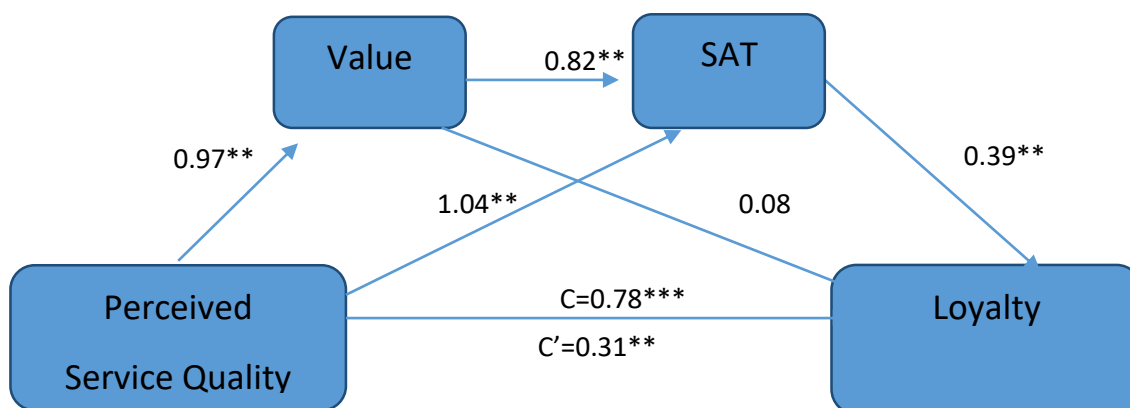


Figure 2: Multiple Mediator Analysis



The above figure shows:

Total effect = C = 0.78

Direct effect = C' = 0.31

Indirect effect = 0.78 - 0.31 = 0.47, out of which 0.39 is derived from the path SAT → Loyalty and only 0.07 is derived from the path VAL → Loyalty.

In other words, there is relation between PSQ and Loyalty but it can be happened through mediators such as Value and Satisfaction, but Value may not directly impact Loyalty it can happen only through Satisfaction, the result ensured role of Satisfaction is vital.

Hence Null hypothesis is rejected and alternate hypothesis is accepted. Perceived value and satisfaction play the role of mediator between service quality dimensions and loyalty.

CONCLUSION:

Strategies should be framed by educational institutions to enhance the satisfaction of students as satisfaction enacted as mediator between value and loyalty. If satisfaction level increases, the institutions can survive in the competitive market and become successful.

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