



Indicators for measuring the Quality of Management Education- A determinant of Student and Faculty satisfaction

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Abstract

A decline in enrollment in Management Education is being caused by students' lack of employability skills. It is impossible to increase pupils' employability unless they receive high-quality instruction. In determining the quality measures of management education and in promoting enrollment, faculty performance and student satisfaction are crucial factors. Quality of Management Education calls for continuous improvement in the entire process of education system emphasising on problem identification and solving. It is very crucial to evaluate teacher and student satisfaction in order to determine how well institutions are doing at delivering high-quality management education. This study's main goal is to identify the critical components of faculty and student job satisfaction at public and private universities in Andhra Pradesh, India. The study is important because it examines the amount of infrastructure provision and other facilities as well as the quality measures of management education, which can vary from time to time. It is very crucial to evaluate teacher and student satisfaction in order to determine how well institutions are doing at delivering high-quality management education. Data was collected from students and faculty of the sample universities using structured questionnaire. Multiple regression analysis and One way ANOVA was used to know key dimensions and the significant differences between the universities.

Key Words: Quality of Education, Management Education, Student Satisfaction, faculty satisfaction, TQM.

Introduction

Because it paves the way for the creation of a knowledge-based society in the twenty-first century, higher education provided by universities is essential to the nation's development. Universities provide students

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with the abilities and information necessary to work in a wide range of settings. Following China and the United States in terms of student enrollment is India's higher education system. India has the benefit of English being the dominant language of higher education and research, in contrast to China. As opposed to 20% in China, India educates only about 11% of its youth in higher education. The Indian Institutes of Technology (IITs), for example, have received praise from countries around the world for the quality of their curriculum. The IITs enrol roughly 8000 students a year, and their alumni have aided in the expansion of India's public and commercial sectors. India, however, has not been able to produce world-class institutions of higher learning like Harvard and Cambridge. No Indian university appears in the top 100 of the Quacquarelli Symonds (QS) World University rankings published by the London Times Higher Education in 2009. East Asian universities, however, are among the first 100. From 100 to 200, there are no Indian universities listed. The Indian Institute of Technology is only discovered once one continues on to the subsequent 100.

In a recent assessment of universities and research institutions worldwide, six Chinese universities were ranked in the top 300, compared to none in India. The Indian Institute of Science, Bangalore, ranks among the top 400 institutions, and IIT, Kharagpur, then appears. However, this advantage also has certain drawbacks. India is home to many institutions that were established with the express purpose of making quick money in addition to top-rated universities that offer highly competitive world-class education to their students. The threat of private institutions that offer programmes without affiliation or recognition has been actively combated by the UGC and other regulatory bodies. Students from semi-rural and rural backgrounds frequently become victims of these universities and institutes. Knowledge these days is power. One is more powerful the more knowledge they possess. The University Grants Commission (UGC) estimates that India needs 1500 additional universities with sufficient research infrastructure.

India currently only has a small number of institutes of international standing. High-end research facilities are generally lacking in Indian colleges and institutions. It is incredibly challenging to deliver top-notch instruction or conduct cutting-edge research when libraries, information technology, laboratories, and classrooms are underfunded. If we wish to hasten our progress, this gap must be closed. The University Grant Commission of India is not only the only grant-making organisation in the nation; it is also in charge of organising, establishing, and upholding the standards in higher education institutions. The Indian university system is in ruin in several areas. Higher education enrollments are appallingly low in nearly half of the states in the union, and 90% of our schools and universities receive below-average ratings for quality. There are allegations of favouritism and corruption in numerous states where university appointments, including those of vice chancellors, have become politicised and subject to caste and sectarian factors.

Objectives of the study

1. To study whether there is a significant difference in the level of perceptions of students and faculty of various select public university colleges of A.P
2. To examine whether there is a significant difference in the level of perceptions of students and faculty of various select private university colleges of A.P.

3. To test whether there is a significant difference between public and private university college student perceptions.
4. To know whether there is a significant difference between public and private university college faculty perceptions.
5. To determine the important quality indicators perceived by management students and faculty in management education.

Scope of the Study

Only Andhra Pradesh's universities are included in the analysis. The districts of Visakhapatnam, Guntur, and Kadapa in Andhra Pradesh were chosen for the public universities, Andhra University, Acharya Nagarjuna University, and Yogi Vemana University. Three private universities were chosen from the Visakhapatnam and Guntur districts: Gandhi Institute of Technology and Management, Koneru Lakshmaiah Education Foundation, and Vignan University. Only traditional universities are included in the analysis.

Review of Literature

The objectives of the paper on 'Role of NEP in management studies: A Brief Insight' by Mahanish Panda is to present the highlights and overview the policies of NEP 2020, to describe and summarize the role of NEP 2020 in the field of management education. The data was collected from various peer reviewed journals, text books, websites, government reports, dissertations etc. The overview of the NEP 2020 states that the NEP has 8 stages i.e. foundation stage, preparatory stage, middle school education stage, secondary education stage, under graduation education stage, post graduation education stage and research stage and lifelong learning. According to NEP 2020 if multidisciplinary education, more specialization than traditional ones and research universities are set up at par with IITs and IIMs will lead to growth of management education. National professional standards for teachers help in creating best faculty members of management sectors. The study also points out that the 4 year system of graduation leads to a question of duration of the course MBA. The study also suggests that research papers should be made compulsory in MBA education. (Panda, 2021)

Universities' concern about students' satisfaction with the quality of instruction has grown during the past almost century. A review of the literature has made it possible to divide the qualities of good teaching into three categories: pedagogical, general, and disciplinary. This study seeks to pinpoint the elements that, in the eyes of its audience, have the greatest impact on learning outcomes. 476 undergraduates from the University of Castilla - La Mancha's Business Administration and Management participated in total (Spain). Student satisfaction with teaching was measured using an impromptu questionnaire. Models that were both parametric (Logistic Regression Analysis) and non-parametric (Decision Tree) were applied (Del Cerro & Ruiz-Esteban, 2020).

The increasing number of students enrolling in universities should be balanced by provision of good-quality teaching. This study examines the effect of lecturers' competency on students' satisfaction directly or indirectly through perceived teaching quality. Path analyses are used to analyze data from 180 lecturers and 600 students from 6 public and private universities in East Java, Indonesia (Suwarni et al., 2020)

Private universities are under intense competition, which has compelled them to alter their services and marketing plans in response to the state of the market and while keeping an eye on the variables affecting student happiness. In this study, the researcher will look at the variables influencing student satisfaction in Pakistan's private universities. A self-administered questionnaire evaluating student satisfaction and factors affecting student satisfaction was used to gather data from 341 students from private universities in Lahore for this quantitative study. Researchers have discovered that in private institutions in Pakistan, aspects including the calibre of the academic staff, university location, university facilities, university image, technology, assessment, and feedback are crucial for student happiness. (Ullah & Ahmad, 2020)

Jaideep Motwani and Ashok Kumar's paper, "The need for applying total quality management in education," examines the relevance of TQM in education and some of the issues raised in the literature. They discussed the issues that educational institutions should take into account before beginning to establish a TQM programme. They proposed a procedure for establishing TQM at an institution based on the methods employed by some of the top institutions. Any educational institution planning to apply TQM can use their five-step model, which they suggested. The five phases of the suggested model include planning, getting started, extending or integrating, and assessing. They recommended using these steps as a framework for putting quality improvements into place within educational institutions. More educational institutions will be able to undertake comparable programmes that result in success stories as a result of communication and idea sharing.

Hadi Mohammad Pour and K. Yeshodhara's work, "Total Quality Management in education - perception of secondary school teachers," attempts to offer secondary school teachers' perspectives on Total Quality Management (TQM) in education in Mysore city, India. This effort aims to comprehend how these impressions change depending on demographic factors like gender and academic expertise (Arts and Sciences). The perspective of comprehensive quality management varied significantly between male and female teachers, according to research. When it comes to how they view TQM in education, secondary school instructors in the arts and sciences don't differ significantly from one another. Data on the Bonstingle conceptualization of Deming's 14 points Total Quality Management (TQM) in Education (1992) were gathered from 156 high school teachers in Mysore, India, and analysed using SPSS version 14.0. ANOVA was used to determine the significance of the variation between subscales of the variables.

Using Deming's 14 TQM principles, Fred C. Lunenburg provides a framework for improving schools in his article "Total Quality Management Applied to Schools." In his work, W. Edwards Deming's concepts for Total Quality Management (TQM) have been proposed as a foundation for achieving excellence in schools. It is predicated on the idea that employees want to give their all, and that management's responsibility is to provide them with the means to do so by continuously enhancing the environment in which they work. It necessitates collaboration, training, and substantial data gathering and analysis. He sees it as a chance to envision a methodical transition for schools. He covered the framework for changing schools using Deming's 14 TQM principles in this post.

An summary of assessment in education in India can be found in Dr. Tapas Kumar Sarkar's paper, "Assessment in Education in India." The main focus of the study is assessment because changing the Assessment and Evaluation system is the most delicate aspect of changing the curriculum. Additionally, it

appears that evaluation will remain a difficult topic and that Indian students will continue to take both national and international exams. (Education For All).

The National Curriculum Framework 2011's "Towards a Quality Education for All" report, written by Grima Grace (Chairperson) and others, gives a thorough introduction to the theoretical framework that served as the inspiration for the National Curriculum Framework's (NCF) ideas. The basic principles of the NCF are summarised, together with the significant developments and difficulties anticipated by the framework, in the first section's conclusion. The objectives and broad principles around which the NCF is built are presented in the second half of this document. These objectives and principles can be realised and accomplished through the suggested subject areas and cross-curricular themes.

Methodology

Selection of sample universities

All of Andhra Pradesh's traditional public and private universities are included in the study's population. In the state of Andhra Pradesh, the sample public and private institutions with more than ten years of operation and NAAC accreditation were chosen. They comprise

Public universities

1. The Andhra University, 1926 - AU
2. The Acharya Nagarjuna University, 1976 - ANU
3. The Yogi Vemana University, 2006 - YVU

Private universities

1. The Gandhi Institute of Technology and Management, 2007 - GITAM
2. The Koneru Lakshmaiah Education Foundation, 2009 - KLU
3. The Vignan University, 2008 - VU

Sample size

The information was gathered from 48, 19 and 14 faculty members and 120, 120, and 80 students, respectively, at public universities Andhra University, Acharya Nagarjuna University, and Yogi Vemana University. Additionally, information was gathered from 110, 169, and 221 students as well as 28, 043,44 faculty members from private universities, including Gandhi Institute of Technology and Management, Koneru Lakshmaiah Education Foundation, and Vignan University.

A student survey with two sections, one for personal information and the other for TQM dimensions. The data was gathered using a questionnaire that covers five TQM characteristics, including the teaching-learning process, teacher commitment to his position, teachers' dedication to preparing students for other related tests, course work, amenities, and student happiness. A faculty questionnaire consisting of two sections viz., section 1- personal information and section 2- consists of 10 quality dimension - Leadership qualities of Principal, Quality of peer group, Linkage with external bodies, Opinion on Students, students participation in Co-curricular Activities, Teaching-Learning process, Office Management, team work, Examination system and Satisfaction about the job. The questionnaire was developed using Likert five point rating scale.

Fig 1: Quality dimensions of student satisfaction

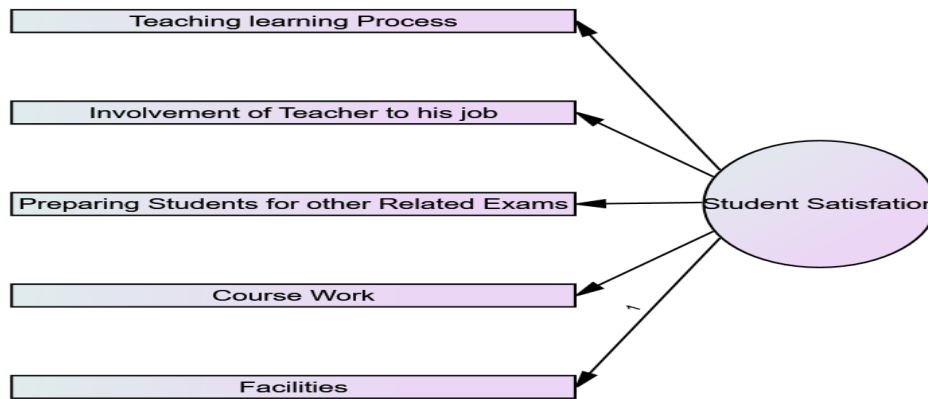
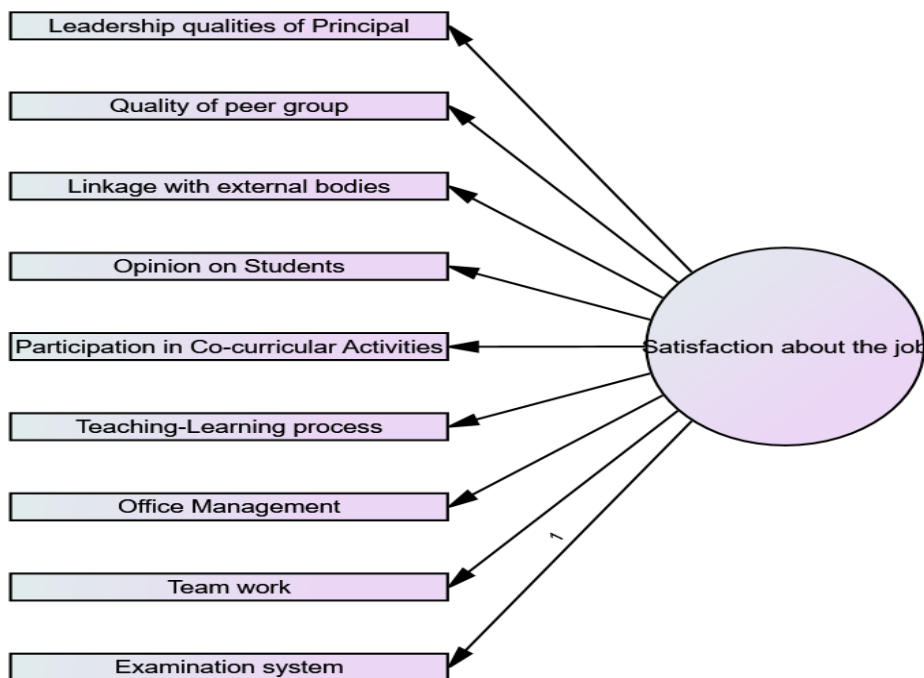


Fig 2: TQM indicators for measuring Job satisfaction of Faculty



Discussion

Table 1: Reliability Statistics

Research Instrument		Cronbach's Alpha	No of Items
Faculty Questionnaire	Leadership qualities of Principal	0.786	7
	Quality of peer group	0.671	6
	Linkage with external bodies	0.620	6
	Opinion on Students	0.803	6
	students participation in Co-curricular Activities	0.680	5
	Teaching-Learning process	0.752	6
	Office Management	0.845	6
	Team work	0.768	5
	Examination system	0.743	5
	Satisfaction about the job	0.691	6
Students Questionnaire	Teaching learning Process	0.758	7
	Involvement of Teacher to his job	0.738	8
	Commitment of Teachers in Preparing Students for other Related Exams	0.550	5
	Course Work	0.730	7
	Facilities	0.831	8
	Student satisfaction	0.710	3

Reliability and Validity

The most commonly used one for assessing reliability is the Cronbach's alpha, which represents the internal consistency of a given scale item. A reliability analysis was carried out on the perceived task values scale comprising 5 items. The Cronbach's alpha values obtained for each TQM dimensions of the instrument for faculty are 0.786, 0.671, 0.620, 0.803, 0.680, 0.752, 0.845, 0.768, 0.743, and 0.691. The Cronbach's alpha values obtained for each TQM dimension of the instrument for students are 0.758, 0.738, 0.650, 0.730, 0.831 and 0.710. The Cronbach's alpha of most of the instruments discussed in this study is > 0.70 and for one variable it is < 0.6 . All the dimensions appeared to be worthy of retention, resulting in a decrease in the alpha if deleted. Hence proceeded with the same.

The validity of all the items of the instruments also tested using correlation matrix and it was found that all the items are significant whose p values are less than 0.05 and are valid.

Table 2: Perceptions of Students on Various aspects of Quality Management in Management Education in Select Public University Colleges

Quality Management Dimensions	Public Universities						F-value
	AU		ANU		YVU		
	Mean	S.D	Mean	S.D	Mean	S.D	
Teaching learning Process	3.52	.25	3.05	.27	3.22	.20	6.845
Involvement of Teacher to his job	3.34	.18	3.14	.06	3.36	.09	8.338
Commitment of Teachers in Preparing	3.31	.13	3.07	.05	3.26	.11	7.444

Students for other Related Exams							
Course Work	3.30	.13	2.97	.14	3.04	.19	8.963
Facilities	3.38	.10	3.11	.10	2.92	.27	13.348
Student satisfaction	3.81	.21	3.21	.14	3.40	..15	9.210

The item-wise ANOVA values are shown in the above table. For 5% level of significance at (2,18), (2,21), (2,12), (2,18), (2,21), and (2,21) degrees of freedom for the dimensions teaching learning process, involvement of teacher in his job, commitment of teachers to preparing students for other related exams, course work, and facilities, respectively, the calculated values of the test statistic F 6.845, 8.338, 7.444, 8.963, 13.348, and 9.210 are greater than the critical values 3.555, 3.467, 3.885, This suggests that there are differences in how students at public university colleges view the teaching and learning process, a teacher's dedication to his or her position, a teacher's commitment to assisting students in preparing for other related exams, course material, facilities, and student satisfaction.

Table 3: Perceptions of Students on Various Aspects of Quality Management in Management Education in Select Private University Colleges

Quality Management Dimensions	Private Universities						F-value
	GITAM		VIGNAN		KLU		
	Mean	S.D	Mean	S.D	Mean	S.D	
Teaching learning Process	3.94	.52	.28	0.05	3.32	.22	4.893
Involvement of Teacher to his job	3.67	.24	3.29	.18	3.28	.22	8.273
Commitment Of Teachers In Preparing Students For Other Related Exams	3.31	.13	3.07	.05	3.26	.11	7.353
Course Work	3.52	.38	3.17	.21	3.15	.11	4.686
Facilities	3.38	.24	3.21	.08	3.18	.09	3.981
Student satisfaction	3.90	.25	3.61	.14	3.90	..15	10.211

The item-wise ANOVA values are shown in the above table. For 5% level of significance at (2,18), (2,21), (2,12), (2,18), and (2,21) degrees of freedom for the dimensions teaching learning process, involvement of teacher in his job, commitment of teachers to preparing students for other related exams, course work, and facilities, respectively, the calculated values of the test statistic F 4.893, 8.273, 7.353, 4.686, and 3.981 are greater than the critical values 3.555, 3.467, 3.885, 3.555, and This suggests that there are significant differences between how students perceive the teaching and learning process, a teacher's commitment to his or her job, a teacher's commitment to preparing students for other related exams, course work, facilities, and student satisfaction at private university colleges.

Table 4: t -test of Students Perceptions about Various Aspects of Quality Management in management education in select Public and Private Universities

Quality Management Dimensions	Type of University				t- value 2-tailed
	Public		Private		
	Mean	S.D	Mean	S.D	
Teaching learning Process	3.26	0.30	3.63	0.43	4.719
Involvement of Teacher to his job	3.28	0.15	3.41	0.28	2.100
Commitment Of Teachers In Preparing Students For Other Related Exams	3.22	0.14	3.09	0.27	2.224
Course Work	3.11	0.21	3.28	0.30	2.516
Facilities	3.14	0.26	3.26	0.18	2.277
Student satisfaction	3.90	.25	3.61	.14	2.90

The item-wise two-tailed test t-values are shown in the above table. The calculated values of the test statistic t for the two-tailed test are 4.719, 2.1, 2.224, 2.516, and 2.277, respectively, and these values are higher than the critical values 2.086, 2.069, 2.145, 2.086, and 2.069 for 5% level of significance at 20, 23, 14, and 20 degrees of freedom for the dimensions teaching learning process, involvement of the teacher in his work, commitment of the teacher to preparing students for other related exams, course work, and facilities, respectively. The results of the two-tailed t-test showed that there are differences in how students see the following factors: the teaching-learning process, teacher commitment to his profession, instructors' commitment to preparing students for other related tests, course work, facilities, and student satisfaction.

Table 5: Multiple Regression Analysis of TQM indicators for Students

Model		Coefficients ^a							
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	8.183	.655		12.498	.000			
	Teaching learning Process	7.320	5.354	.089	10.483	.029	.059	.017	.017
	Involvement of Teacher to his job	-.015	.019	-.031	-.764	.445	.029	-.027	-.027
	Commitment Of Teachers In Preparing Students For Other Related Exams	.034	.030	.043	1.129	.259	.064	.040	.039
	Course Work	.053	.026	.079	1.209	.035	.053	.007	.007
	Facilities	.051	.021	.080	2.423	.016	.106	.085	.084

a. Dependent Variable: student satisfaction

The multiple regression analysis reveals that Teaching learning Process, course work and facilities are significant among all other independent variables. The ranking of the quality indicators by the students of the select universities is given by standardised coefficients (Beta) is teaching learning process, facilities, course

work, Commitment Of Teachers In Preparing Students For Other Related Exams and Involvement of Teacher to his job.

Table 6: ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	82.578	5	16.516	2.284	.045 ^b
	Residual	5886.734	814	7.232		
	Total	5969.312	819			

a. Dependent Variable: stusatis

b. Predictors: (Constant), d5, d3, d2, d1, d4

The F-test of overall significance indicates that the linear regression model to determine student satisfaction that was used in this study is of best fit because the p value is less than 0.05 (0.045).

Table 7: ANOVA of perceptions of Faculty on Various Quality Management Dimensions in Management Education in Select Public Universities

Quality Management Dimensions	Public Universities						F-value
	AU		ANU		YVU		
	Mean	S.D	Mean	S.D	Mean	S.D	
Leadership qualities of Principal	3.21	.206	3.17	.293	2.88	.200	4.075
Quality of peer group	3.29	.186	3.11	.332	3.18	.134	0.962
Linkage with external bodies	3.30	.125	3.23	.358	3.04	.197	1.921
Opinion on Students	3.22	.129	3.16	.346	3.01	.223	1.124
students participation in Co-curricular Activities	3.39	.093	3.39	.098	3.30	.031	1.844
Teaching-Learning process	3.22	.200	2.74	.392	3.04	.374	3.080
Office Management	3.36	.056	3.29	.126	3.28	.141	0.899
Team work	3.40	.143	3.28	.166	3.20	.111	2.130
Examination system	3.43	.168	3.13	.281	3.26	.200	2.401
Satisfaction about the job	3.40	.340	3.48	.322	3.25	.078	0.228

The item-wise ANOVA values are shown in the above table. For the dimension of Principal leadership traits, the calculated values of the test statistic F 4.075 are higher than the crucial value of 3.55 for 5% level of significance at (2,18) degrees of freedom. This suggests that faculty members' assessments of the leadership abilities of the principal in some public universities may differ. The estimated values of the test statistic F are smaller than the critical values 3.68, 3.68, 3.88, 3.68, 3.68, 4.26, 3.88 and 3.68 for 5% level of significance at (2,15), (2,15), (2,12), (2,15), (2,9), (2,12), and (2,15) degrees of freedom for the dimensions. Peer group quality, connections to outside organisations, opinions of students, co-curricular activity involvement, the teaching-learning process, office management, teamwork, the examination system, and job satisfaction are all factors to consider. This suggests that there are no differences between the faculty's perceptions of the teaching-learning process, office management, teamwork, student participation in extracurricular activities, peer group quality, links to external organisations, opinion of students, and the examination system and work satisfaction in a few public universities.

Table 8: ANOVA of Perceptions of Faculty on Various Quality Management Dimensions in Management Education in Select Private University Colleges

Quality Management Dimensions	Private Universities						F-value
	GITAM		VIGNAN		KLU		
	Mean	S.D	Mean	S.D	Mean	S.D	
Leadership qualities of Principal	3.21	.201	3.23	.193	3.06	.203	1.568
Quality of peer group	3.38	.119	3.28	.053	3.22	.102	3.997
Linkage with external bodies	3.35	.194	3.24	.066	3.27	.166	0.797
Opinion on Students	3.33	.130	3.23	.141	3.38	.099	2.211
students participation in Co-curricular Activities	3.42	.103	3.31	.148	3.33	.172	0.734
Teaching-Learning process	3.34	.373	3.18	.364	3.25	.380	0.290
Office Management	3.47	.106	3.35	.147	3.35	.137	1.539
team work	3.32	.150	3.27	.161	3.33	.187	0.141
Examination system	3.60	.163	3.37	.243	3.30	.205	2.985
Satisfaction about the job	3.46	.140	3.14	.222	2.87	.320	19.194

calculated values of the test statistic F 3.997 and 19.194 are greater than the critical values of 3.68 and 3.68 for 5% level of significance at (2,15) and (2,15) degrees of freedom for the dimensions Quality of peer group and Satisfaction about the job. This gives us inference that there exists difference in the perceptions of the faculty on the dimensions Quality of peer group and Satisfaction about the job in select private university colleges. The calculated values of the test statistic F 1.568, 0.797, 2.211, 0.734, 0.290, 1.539, 0.141 and 2.985 are less than the critical values 3.55, 3.68, 3.68, 3.88, 3.68, 3.68, 4.26 and 3.88 for 5% level of significance at (2,18), (2,15), (2,15), (2,12), (2,15), (2,15), (2,9) and (2,12) degrees of freedom for the dimensions Leadership qualities of Principal, Linkage with external bodies, Opinion on Students, students participation in Co-curricular Activities, Teaching-Learning process, Office Management, Team work and Examination system. This gives us inference that there is no difference in the perceptions of the faculty on Leadership qualities of Principal, Linkage with external bodies, Opinion on Students, students participation in Co-curricular Activities, Teaching-Learning process, Office Management, Team work and Examination system in select private universities.

Table 9: t-test of faculty Perceptions about Various Aspects of Quality Management in management education in select Public and Private Universities

Quality Management Dimensions	Type of University				t- value 2-tailed
	Public		Private		
	Mean	S.D	Mean	S.D	
Leadership qualities of Principal	3.09	.271	3.17	0.205	-1.242
Quality of peer group	3.19	0.232	3.29	0.111	-1.723
Linkage with external bodies	3.19	0.259	3.28	0.150	-1.183
Opinion on Students	3.13	0.251	3.31	0.133	-2.641
students participation in Co-curricular Activities	3.36	0.085	3.35	0.141	.141
Teaching-Learning process	3.00	0.372	3.26	0.356	-2.290
Office Management	3.31	0.113	3.39	0.135	-2.261
team work	3.29	0.155	3.31	0.153	-.263
Examination system	3.27	0.243	3.42	0.234	-2.040
Satisfaction about the job	3.38	0.275	3.15	0.334	2.186

The item-wise two-tailed test t-values are shown in the above table. The calculated values of the test statistic t of the two-tailed test are 1.242,1.723,1.183,2.641,0.141,0.798,2.261,0.263,2.040, and 0.069, respectively, are higher than the critical values 2.086,2.110,2.110,2.145,2.110,2.110,2.201,2.145, and 2.110 for 5% level of significance at 20, 17, 17, 17, 14, 17, 17, 11, 14, and 17 degrees of freedom for the dimensions teaching learning process, The results of the two-tailed t-test showed that there are differences in how students view the aspects of the teaching and learning process, the dedication of teachers to their work, the dedication of teachers to preparing students for other related tests, course work, and amenities of public and private university colleges.

The ranking of the quality indicators as per the perceptions of students is 2,1,3,5,4 for public universities where as it is 1,2,5,3, 4 for private universities for five dimensions viz., teaching learning process, involvement of teacher to his job, commitment of teachers in preparing students for other related exams, course work and facilities respectively. The ranking of the quality indicators as per the perceptions of faculty is 9,6,6,8,2,10,3,4,5,1 for public universities and 9,6,7,4,3,8,2,4,1,10 for private universities for the 10 dimensions Leadership qualities of Principal, Quality of peer group, Linkage with external bodies, Opinion on Students, students participation in Co-curricular Activities, Teaching-Learning process, Office Management, team work, Examination system and Satisfaction about the job.

Table 10: Multiple Regression Analysis of TQM indicators for faculty

Model		Coefficients ^a							
		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Correlations		
		B	Std. Error	Beta			Zero-order	Partial	Part
1	(Constant)	-2.665	1.173		-2.272	.024			
	Leadership qualities of Principal	.214	.039	.223	5.464	.000	.658	.372	.170
	Quality of peer group	.814	.048	.681	16.957	.000	.855	.779	.527
	Linkage with external bodies	-.059	.040	-.056	-1.471	.143	.455	-.107	-.046
	Opinion on Students	.159	.040	.160	4.015	.000	.566	.282	.125
	students participation in Co-curricular Activities	-.046	.032	-.055	-1.418	.158	-.111	-.103	-.044
	Teaching-Learning process	-.315	.032	-.238	-9.835	.000	-.049	-.081	-.035
	Office Management	.013	.038	.014	.340	.734	.102	.025	.011
	team work	.402	.023	.104	17.468	.000	-.027	.009	.004
	Examination system	.053	.033	.060	1.621	.107	.273	.118	.050

a. Dependent Variable: Satisfaction about the job.

The multiple regression analysis reveals that Leadership qualities of Principal, Quality of peer group, Opinion on Students, Teaching-Learning process and team work are significant among all other independent variables. The ranking of the quality indicators by the faculty of the select universities is given by standardised coefficients (Beta) is quality of peer group, teaching learning process, Leadership qualities of principal,

opinion on students, team work, Examination system, linkage with external bodies, students participation in Co-curricular Activities, office management.

Table 11: ANOVA^a

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	2850.657	9	316.740	94.210	.000 ^b
Residual	625.343	186	3.362		
Total	3476.000	195			

a. Dependent Variable: VAR00001

b. Predictors: (Constant), VAR00010, VAR00007, VAR00004, VAR00009, VAR00006, VAR00002, VAR00005, VAR00003, VAR00008

The F-test of overall significance indicates the the linear regression model that was used in this study is of best fit because the p value is less than 0.05.

Suggestions to improve the Quality

- **Identifying the Needs:** First of all, for various areas, identification of faculty and student needs to be ascertained. For example, customers for Accounts Branch include employees (staff and faculty), students, paper-setters, examiners, outside organisations etc, and in case of teaching, students are the only customers.
- **Specifying Quality Standards:** For both students and faculty key processes for satisfying their needs should be identified. Agreement on quality standards for various processes among the faculty and students have to be obtained. For working out standards, different groups for different departments/units can be formed involving the people directly related to that work. Quality standards are not something static but dynamic. So, standards need to be reviewed and changed over time.
- **Benchmarking:** Quality benchmarks are the means of measuring how well a faculty meets the specified quality standards. For example, in case of teaching one of the quality standard is `classes will start at scheduled time` and quality benchmark is `95% of all classes will start at scheduled time`. Quality standards and benchmarks need to be disseminated among the concerned people.
- **Analysing the Existing System:** The existing system should be analyzed in the light of the quality benchmarks specified for various processes in order to identify the gaps and prioritise action areas.
- **Planning for Improvement:** Improvement plans need to be prepared keeping in view the contextual factors existing within the department/unit. Plan should clearly indicate Aims/Objectives of improvement, Strategy to be adopted, Roles and responsibilities of various personnel, Monitoring and evaluation procedure, and Organising resources
- **Implementation of Improvement Plans:** This stage involves actual carrying out of the activities as per improvement plans. Implementation requires team-building, total commitment of people and top management support.
- **Monitoring and Evaluation:** Monitoring of progress towards achievement of objectives of the improvement plan or quality standards should be done by a team constituted for the purpose. On the

basis of information gathered, make necessary modifications in the plan or take necessary actions to facilitate implementation of plan. Evaluation needs to be carried out to determine the extent to which improvement objectives have been achieved. Feedback from the concerned faculty, staff and students or external customers should be obtained to ascertain their perceptions or reactions towards the improvements made in various processes.

Conclusion

In view of the above aspects, the Universities should discharge several responsibilities in areas of imparting education, sponsored research consultancy, continuing education and extension activities, and developmental services to the society and efficient management. These functions may be common to what the Indian Universities are familiar with it. But the need of the hour demands more focused vision in reality to discharge their functions in a more efficient manner and the academicians should take the responsibility to mobilise the resources to the University through consultancy and other academic activities in a vigorous fashion than in yester years.

References

1. Arcaro, JS (1996): Quality in education. An Implementation book. Delray Beach: St. Lucie Press.
2. Black, S.A., (1993) "Measuring the Critical Factors of Total Quality Management", University of Bradford: unpublished Ph.D. thesis.
3. Byrness, MA 1992: The quality teacher. Implementing Total Quality Management in the classroom. London: Cornesky and Associates Press.
4. Dharani. P Sinha, (2006) Management Education in India perspectives and Challenges (Hyderabad: ICFAI. University Press. 1st edition).
5. Fred C. Lunenburg, "Total Quality Management Applied to Schools", Schooling Volume 1, Number 1, 2010
6. Hadi Mohammad Pour and K. Yeshodhara, "Total Quality Management in education – perception of secondary school teachers".
7. Jaideep Motwani and Ashok Kumar, "The need for implementing total quality management in education", International Journal of Educational Management, 11/3 [1997] 131–135.
8. Lakshman, C "A Theory of Leadership for Quality: Lessons from TQM for Leadership Theory1 ", Total Quality Management Vol. 17, No. 1, 41–60, January 2006.
9. Marie Lall, "The Challenges for India's Education System", Asia Programme, Chatham House, ASP BP 05/03, April 2005.
10. Mate Julius Khamati and Wesonga Justus Nyongesa, "Factors Influencing the Implementation of Free Secondary Education in Mumias District, Kenya", Journal of Social Science for Policy Implications 1(1); June 2013 pp. 32-47.
11. Renson Muchiri Mwangi, "The Role Of School Leadership In Student Achievement In Kenya", A Research Paper.
12. Serafimovska M.Sc , Ristova E M.Sc, "The Impact Of Leadership On Achieving Total Quality Management".
13. Dr Tapas Kumar Sarkar, "Assessment in Education in India", SA-eDUC JOURNAL Volume 9, Number 2 September 2012.