

FACTORS AFFECTING JOB SATISFACTION AMONG EMPLOYEES OF HIGHER EDUCATION: A CASE STUDY

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Abstract *The higher education sector plays a pivotal role in developing the skilled manpower for the balanced socio economic growth of the country. Both public as well as private higher educational institutions contribute towards building the competence base of the society. In Rajasthan also, the higher education sector has seen a vast growth both in terms of investments and gross enrolment ratio. The employees are involved and are crucial for the accomplishment of the objectives. The study involved assessing the antecedents of job satisfaction level of the employees and identifying the most significant factors influencing the same. The findings suggest that the major factors affecting the satisfaction among the academic employees remain the job challenges, concern for the performance evaluation methods used, and the lack of role clarity in the institutions. The private sector employees have more concern for the salary and the job security as compared to the public sector employees.*

Keywords: *Job Satisfaction, Higher Education, Academic and Administrative Employees, Public and Private Sector Institutions, Demographic and Job Related Factors*

INTRODUCTION

The concept of job satisfaction is central to many aspects of industrial and organisational behaviour. Efforts have been made independently and jointly by all the concerned including management practitioners, behavioural scientists, managers, researchers, economists etc. to explore the role of job satisfaction in determining the work performance of an employee. Engaged employees do better jobs and are essential to the organisations' long term success. Winning loyalty and commitment of employees is a critical responsibility and a key to organisations' strategic objectives.

Employee satisfaction represents the constellations of person's attitude towards or about the job. In general, employee satisfaction is the attitude towards the job as a whole. Employee satisfaction is a function of satisfaction with different aspects of job, that is supervision, pay, work itself, co-workers, promotion etc., and the level of importance one attaches to these respective components. The most commonly used facets of satisfaction according to Judge *et al.* (2001) are satisfaction with pay, promotion opportunities, co-workers, supervision, and the work itself (Smith, Kendall & Hulin, 1969). These five job facets usually account for a substantial amount of the variance in overall job satisfaction

The aim of this study is to assess the applicability and conceptualisation of work-related factors and how they influence job satisfaction. In doing so, this study will provide empirical evidence about the nature of work, and how they affect employee behaviour.

REVIEW OF LITERATURE

Job satisfaction has been most important ingredient of productivity as it determines the perception, attitude and ultimately the behavioural pattern of organisational participants. Taking this into consideration, several valuable studies have been conducted by the scholars in India and abroad on the various aspects of job satisfaction and a brief abstract of those studies particularly related to higher education is presented in the preceding paras. Sharma & Gupta (2009) carried out principal component analysis for extracting factors and the number of factors to be retained. Cordial relations and congenial environment prevalent in the organisation was the most important factor which accounted for the maximum percentage of variance. Narang & Dwivedi (2010) studied the relative significance of five dimensions of job satisfaction in the context of managing knowledge workers. The validated instrument comprises of five dimensions, namely organisational support, competitive

excellence, repressive management practices, fair and transparent management, and supervision and guidance. Padala (2011) revealed that employees are found to have a positive inclination in their intensity of commitment towards their organisation. Age, education, nature of the job, length of service, and income have negative relations with the employee job satisfaction as well as organisational commitment. Khan (2011) found that nearly everyone is influenced by the needs for job security, promotion and approval of peers and/or leaders.

Ghafoor (2012) found there was not too much difference in job satisfaction on the basis of demographic characteristics. But, male academic staffs were slightly more satisfied than their counterparts. The permanent academic staffs were more satisfied than contractual academic staff. The academic staffs with PhD's degree were more satisfied with job than academic staff with MPhil, Master and Bachelor (Hons) degree. The academic staff with high net monthly salary were found more satisfied than those who were earning less monthly salary. The experienced faculty members were more satisfied than less experienced. It was also found age and job satisfaction was not positively correlated with each other. The academic staff from private sector universities were comparatively more satisfied with overall job satisfaction than that of public sector universities.

Nyanga, Mudhovozi, Chireshe & Maunganidze (2012) investigated job satisfaction among employees of higher education institutions and found that more female than male and younger than older employees reported that they were satisfied with their jobs. Job satisfaction also decreased with a rise in academic qualifications. Nagar (2012) stated that the job conditions may be eroding job satisfaction thereby directly damaging physical and mental health of employees. While happy workers would turn up more often to work as they enjoy it, a dissatisfied worker would try to remain absent from work to avoid it. Rahman (2012) indicated that there were significant differences in job satisfaction across age, sex, rank, years of experience, academics, degrees and academic results. Gujarathi & Shetty (2012) suggested that the concept of human sigma within educational context, stating that a contented faculty is a source of student's satisfaction, but for this faculty need to be retained and satisfied. Katoch (2012) identified that female college teachers were more satisfied with their job than male teachers and income per annum is an important factor impacting the level of job satisfaction. Bhambu & Panghal (2013) carried out a comparison of job satisfaction at work place. The job satisfaction on leadership and planning, resource and career development, working conditions, employee benefits, and ability of employee for work is satisfying. Mustapha (2013) focused on the relationship between financial rewards against job satisfaction among lecturers. This study found that, the financial rewards has a positive correlation with job satisfaction.

RESEARCH METHODOLOGY

The present study aims to identify the antecedents of job satisfaction of the employees of the higher educational institutions. For the study data were collected from a large sample of 424 academic and administrative employees from 25 higher educational institutions (including public and private) of Bikaner district. The cross-sectional research design was used for this study as the researcher collected and compared several variables in the study at the same time and finally, the analysis of the data was done using statistical software (SPSS).

The other issue of concern was to develop certain parameters that can directly or indirectly affect the satisfaction level of the employees. Quantitative approach was found to be more appropriate for this study.

In view of the aforementioned context of the study and the contents of the present study the following objectives were framed.

- i. To measure/analyse the factors of job satisfaction amongst the employees of higher educational institutions
- ii. To identify the comparative factors influencing job satisfaction among academic and administrative employees
- iii. To suggest measures to improve job satisfaction among the employees of higher education in Bikaner district

Hypotheses of the present study are:

H1: Demographic characteristics (i.e. age, gender, tenure, education) are significantly related to job satisfaction and job performance.

H2: Job characteristics are significantly related to job satisfaction and job performance.

The questionnaire method was selected because it is a relatively unobtrusive and inexpensive method for data collection. The response rate from private institutions was 77.7 per cent and 82.6 per cent from public institutions. In addition, 15 interviews were carried out among academics and administrative employees, as a follow up to the questionnaires. The information collected from the interviews was used, where relevant, to support some of the findings from the quantitative analysis. The geographical location of this research study was Bikaner district of Rajasthan. The choice of Bikaner as a study location has been motivated by the remarkable growth of higher educational institutions over the last two decades as a result of rapid expansion and supportive government budgetary allocation and policies favouring the private investments. In all 64 higher educational institutions exist in the areas offering a wide variety of courses ranging from general

The first of the two-stage selection of the sample involved determining the institutions which would participate in the study. The three factors used as the basis for selection of the colleges were year of establishment, size, and courses

The measurement scales in the pilot study were also tested for internal consistency using the Cronbach alpha coefficient. The alpha score was 0.859 which was showing a very good reliability measure of the questionnaire used.

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.777	15.923	15.923	4.777	15.923	15.923
2	3.390	11.300	27.223	3.390	11.300	27.223
3	1.852	6.172	33.395	1.852	6.172	33.395
4	1.515	5.050	38.445	1.515	5.050	38.445
5	1.302	4.341	42.786	1.302	4.341	42.786
6	1.269	4.231	47.017	1.269	4.231	47.017
7	1.201	4.003	51.020	1.201	4.003	51.020
8	1.125	3.750	54.770	1.125	3.750	54.770
9	1.052	3.505	58.276	1.052	3.505	58.276
10	.983	3.278	61.554			
11	.963	3.210	64.764			
12	.923	3.076	67.840			
13	.861	2.870	70.709			
14	.799	2.664	73.374			
15	.784	2.612	75.986			
16	.760	2.533	78.519			
17	.683	2.277	80.795			
18	.656	2.185	82.981			
19	.606	2.022	85.002			
20	.579	1.931	86.933			
21	.571	1.903	88.836			
22	.501	1.670	90.507			
23	.490	1.632	92.139			
24	.448	1.494	93.632			
25	.405	1.351	94.984			
26	.389	1.296	96.280			
27	.332	1.107	97.387			
28	.309	1.031	98.418			
29	.277	.922	99.340			
30	.198	.660	100.000			
Extraction Method: Principal Component Analysis.						

Table 2: Factor analysis of Rotated Component Matrix^a

	Component				
	1	2	3	4	5
Role clarity	.541				
Job significance					.754
Task Variety	.535				
Supervisor support	.724				
Seniors' support	.706				
Working Conditions			.776		
Availability of resources			.741		
Job autonomy			.472		.719
Mentoring		.545			
Salary		.632			
Benefits		.698			
Work life balance		.677			
Equally Distributed work load				.776	
Equally Distributed responsibility				.811	
Extraction Method: Principal Component Analysis					
Rotation Method: Varimax with Kaiser Normalisation.					
a. Rotation converged in 7 iterations.					

RESULTS AND DISCUSSION

The total number of institutions studied is 25 which included both public and private sector. Most of the public sector institutions are older than 2 decades and the private sector has grown manifold in the last 10 years very rapidly. Out of the 400 respondents, 200 were from the public higher educational institutions while remaining 200 were from private institutions. Out of the total 400 respondents, 200 were academic while 200 (50%) were administrative employees. Majority of the respondents were of the age group above 50 followed by between 40-49 years of age. 75 percent of the respondents were male and out of all the respondents majority had the job tenure below 4 years. It was intended to only take into consideration those employees who were regular and had more than 1 year of work experience in the institution. Majority respondents were postgraduates followed by graduates, only 14 percent had doctorate. Most of the respondents from the public sector belonged to the age group above 50 having Ph.D. as their qualification and earning salary above Rs. 1 lakh.

Factor Affecting Job Satisfaction

Factor analysis and Principal Component Analysis (PCA) were considered the most appropriate techniques to find out the various factors and reducing them into a small number. Prior to performing PCA, the suitability of the data for factor analysis was assessed (Hair *et al.*, 1998; Pallant, 2006). The

sample size of this study was above the recommended limit for factor analysis ((Hair *et al.*, 1998). An inspection of the correlation matrix of the 29 job satisfaction items revealed that most of the correlation coefficients (r) were greater than 0.30 ($p < 0.05$). The Kaiser-Meyer Oklin (KMO) Measure of Sampling Adequacy was 0.757, which was above the recommended value (Hair *et al.*, 1998, Pallant, 2006). The results are shown below.

The factor analysis (Table 1) showed that out of the 30 factors studied, 9 major factors had eigenvalues exceeding 1 explaining 15.923% to 3.505% of the variance respectively. Factors that had correlation coefficients of 0.50 and above were retained. The job satisfaction items which loaded on each factor were clustered together and sorted in order of the size of their correlations.

Varimax rotation was performed to aid in the interpretation of the extracted factors. Factors that had correlation coefficients of 0.40 and above were retained. The job satisfaction items which loaded on each factor were clustered together and sorted in order of the size of their correlation.

The major factors that had an impact on job satisfaction were classified as under:

- Clarity of job expectations (role clarity, performance criteria, performance-reward relationship, promotion policy and recognition)
- Nature of work (job significance, task variety, work load, role overload)

Table 3: Multiple Regression Analysis for Job Satisfaction Among Academic Employees

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.550a	.303	.184	.72265	.303	2.547	29	170	.000

a) dependent variable: Job satisfaction

- c. Climate, culture and collegiality (supervisor's, seniors' and coworkers' support, working conditions, job autonomy, available resources, comfort level and mentoring)
- d. Quality of work life (salary, benefits and work life balance)
- e. Equity and fairness at work (distributive teaching, advising and responsibility and fair treatment)

The factor analysis confirms the other factors that had been selected for study after the review of literature except the demographic characteristics which were found to have no correlation coefficients significant enough to have been included in the factor loadings.

Multiple regression analysis is used to identify the influence of the factors and the association between the independent variables and the dependent variable. The analysis is applied for academic employees followed by administrative employees of the higher education sector.

- i. Academic employees

To assess the relatedness of the various independents factors (demographics and job characteristics) with the dependent factor (job satisfaction), multiple regression was carried out using SPSS.

The R square value accounted for 18.4%, which determines a low level of variance in job satisfaction due to the combination of independent variables in the model among the academic staff of the higher education sector in Bikaner district. Since the significance of F value is less than the p-value (0.05 in this case), the sample clearly shows the relatedness and variance among the independent and dependent variables of the study.

Thus the hypothesis H1 which states that there are independent factors that influence the job satisfaction is partially accepted for the academic employees which is further verified for the specific factors with the help of hierarchical regression analysis in the later section of the chapter. Table 4 shows the results of the analysis.

Level of significance: $p < 0.05$

Table 4: Hierarchical Multiple Regression Model Summary Predicting Job Satisfaction Among Academic Employees

R- Square	0.48	0.164	0.224	0.256	0.287	0.304
Adjusted R- Square	0.023	0.119	0.116	0.164	0.185	0.185
R- square change	0.048	0.116	0.061	0.032	0.031	0.017
F (ANOVA) Sig.	0.088	0.000	0.000	0.000	0.000	0.000

Table 5: Stepwise Regression Analysis Predicting Job Satisfaction Among Academic Employees

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig.
	B	Std. Error	Beta		
Role clarity	.424	.106	.274	4.011	.000
Seniors' support	.248	.071	.235	3.487	.001
Benefits	.161	.052	.209	3.130	.002
Job significance	.218	.083	.170	2.629	.009
Avail. resources	.162	.068	.158	2.373	.019
Work load	.167	.081	.134	2.062	.041
R = 0.488 R ² = 0.238 Adj R ² = 0.214 F = 4.253					
Dependent Variable: job satisfaction					

Table 6: Multiple Regression Analysis for Job Satisfaction Among Administrative Employees

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.712a	.507	.455	.70558	.507	9.759	19	180	.000

Table 7: Hierarchical Multiple Regression Predicting job Satisfaction Among Administrative Employees

R-Square	0.039	0.135	0.427	0.483	0.488	0.507
Adj R-square	0.014	0.099	0.393	0.444	0.440	0.455
R-square change	0.039	0.097	0.291	0.056	0.005	0.019
F Sig	0.174	0.000	0.000	0.000	0.000	0.000

The result of hierarchical regression analysis in Table 4 indicates that all the independent variables of the study accounted for 30.4 % of the variance in job satisfaction among academic employees. The R-square change value indicates that the strongest influence originated from clarity of job expectations (Model 1). The results show that age and sector were the only demographic variables which positively predicted job satisfaction.

Among the quality of work life, salary, benefits, and work-life balance (Model 5) were significant positive predictors of job satisfaction. Negative beta coefficient for education suggests that academics with lower levels of education were more satisfied with the job as compared to academicians with higher educational qualification.

The results of Stepwise regression analysis showing predictors of job satisfaction among academic staff respondents are in Table 5.

The results show that the independent variables accounted for 21.4% of the variance in job satisfaction among academic staff respondents. The beta coefficients indicate role clarity as the most important factor causing variance in the dependent variable.

ii. Administrative employees

To assess the influence of various independent factors (demographics and job characteristics) on the dependent factor (job satisfaction) for the administrative employees, multiple regression was carried out and the results are shown in Table 6. The adjusted R square value accounted for 45.5%, which is a moderately a good measure of the level of variance in job satisfaction due to independent variables among the administrative employees of the higher education sector in Bikaner district. Since the significance of F ratio value is less than the p-value (0.05 in this case), the sample clearly shows the variance among the dependent variables due to the independent variables of the study.

dependent variable: job satisfaction

- b) Thus the hypothesis H1 which states that there are independent factors that influences the job satisfaction stands partially true for the administrative employees, which is further verified for the specific factors with the help of hierarchical regression analysis in the Table 7.

Table 7 clearly reflects the variances caused by the independent factors.

Table 8 depicts the results obtained after carrying out stepwise regression analysis for the significant factors that affect the

Table 8: Stepwise Regression Analysis for Predicting Job Satisfaction Among Administrative Employees

Independent Variables	Unstandardised Coefficients		Standardised Coefficients	t	Sig.
	B	Std. Error	Beta		
Job significance	.364	.041	.536	8.939	.000
Task variety	.464	.097	.286	4.775	.000
Salary	.260	.050	.324	-5.174	.000
Role clarity	.196	.091	.122	2.145	.033
Education	.102	.049	.110	2.082	.039
Dependent Variable: Job satisfaction					

Table 9: Multiple Regression Model for The Influence of Demographics Predicting Job Satisfaction Among Higher Education Employees

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.134a	.018	.005	.88058	.018	1.441	5	394	.209

a. Predictors: (Constant), Age, Gender, Tenure, Education Sector

Table 10: Coefficients^a for Demographic Characteristics and Job Satisfaction Among Employees of the Higher Education Sector

Model B		Unstandardised Coefficients		Standardised Coefficients	T	Sig.
		Std. Error	Beta			
1	(Constant)	1.388	.321		4.324	.000
	Age	.027	.046	.034	.587	.558
	Gender	-.004	.106	-.002	-.035	.972
	Tenure	-.071	.036	-.114	-1.965	.050
	Education	.043	.042	.053	1.022	.308
	Sector	.074	.104	.042	.711	.477

a. Dependent Variable: Job Satisfaction

job satisfaction. The value of Beta coefficient shows that job significance is the most significant of the factors considered for job satisfaction.

Exploration of Relationships

The purpose of the data analyses is to explore relationships and carry out tests of hypotheses among the various variables of the study. These relationships are among the independent variables namely, demographic variables (i.e. age, gender, tenure and education) and job characteristics (clarity of job expectations, nature of work, climate, culture and collegiality, quality of work life and equity and fairness), and the dependent variable, namely, job satisfaction. The data analyses aim to address the following objectives of the study:

- To examine the extent to which demographic characteristics, job characteristics influenced job satisfaction among employees in public and private higher educational institutions (Objective 1).
- To identify the factors that contributes to the job satisfaction of employees of higher education employees in Bikaner district (Objective 1).

In this analysis, all the independent variables were entered into hierarchical multiple regression with job satisfaction as the dependent variable. Prior to carrying out multiple regression analysis, it was important to ensure that the

independent variables were not too highly correlated, which is an indication of multicollinearity of the data. In this study the correlation between the independent variables was below 0.619 which is under the recommended limits.

The analysis was carried out initially for assessing the influence of demographic factors on the job satisfaction of academic employees and then that of the administrative employees of the higher education sector (for both public and private sector combined). The results of the analyses are presented in the Table 9.

F-test was conducted on the whole model to test the hypothesis that the correlation coefficients for all the variables included in this model are zero (Null Hypothesis). F-statistic for the model has a significance level of 0.209 which is greater than the p-value. Table 10 shows that educational qualification is the most important predictor out of the demographics for the job satisfaction among academic employees.

Multiple regression analysis was applied for assessing the influence of job characteristics. The details of the analyses for academic employees, followed by administrative employees are presented below.

i. Academic employees

The data obtained for the job characteristics was divided into five major segments, namely role clarity, performance criteria, performance-rewards relationship, promotion policy, and recognition for the contributions made. The

Table 11: Multiple Regression Analysis for Influence of Clarity of Job Expectations on Job Satisfaction Among Academic Employees

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.374a	.140	.117	.75157	.140	6.293	5	194	.000

a. Predictors: (Constant), Role clarity, Performance criteria, Performance- reward relationship, promotion policy, Recognition

Table 12: Coefficients^a for Influence of Clarity of Job Expectations on Job Satisfaction Among Academic Employees

Model B		Unstandardised Coefficients		Standardised Coefficients	T	Sig.
		Std. Error	Beta			
1	(Constant)	.645	.212		3.041	.003
	Role Clarity	.284	.110	.184	2.584	.010
	Performance criteria	.213	.091	.164	2.331	.021
	Performance- reward relationship	-.032	.066	-.033	-.484	.629
	Promotion policy	.072	.050	.106	1.439	.152
	Recognition	.105	.061	.124	1.730	.085

a. Dependent Variable: Job satisfaction

results of the multiple regression analysis are presented in Table 11 below.

The value of the adjusted R square indicates the amount of variation in the dependent variable explained by the combination of independent variables in the model. The

value of adjusted R square is 11.7%, which means that these independent variables are quite low predictors of dependent variable. But the value of F indicates that the correlation exists between the independent and the dependent variables since it is significant at $p < 0.05$.

Table 13: Multiple Regression Analysis for Predicting Influence of Clarity of Job Expectations on Job Satisfaction Among Administrative Employees

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.322a	.104	.090	.91196	.104	7.579	3	196	.000

a. Predictors: (Constant), Role Clarity, Performance criteria, promotion policy

Table 14: Coefficients^a for Influence of Clarity of Job Expectations on Job Satisfaction Among Administrative Employees

Model B		Unstandardised Coefficients		Standardised Coefficients	T	Sig.
		Std. Error	Beta			
1	(Constant)	.504	.217		2.324	.021
	Role clarity	.326	.127	.203	2.568	.011
	Performance Criteria	.114	.109	.083	1.044	.298
	Promotion policy	.093	.039	.166	2.414	.017

a. Dependent Variable: Job satisfaction

Table 15: Multiple Regression Analysis for The Influence of Nature of Work on Job Satisfaction Among Academic Employees

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.344a	.118	.100	.75876	.118	6.553	4	195	.000

a. Predictors: (Constant), Job significance, Task variety, Work load, Role overload

The beta regression coefficient assesses the strength of the relationship between each independent variable to the dependent variable, the results in Table 12 confirm that role clarity was one of the most important variable predicting the job satisfaction.

ii. Administrative employees

The results of the multiple regression analysis are presented in Table 13 and 14.

Table 14 indicates that the influence of the independent variables is 9% on the dependent variable for administrative employees. The significance of F-value is in the acceptance region of the variance (<0.05). Thus there exists significant variance being caused due to independent variables. Table 14 shows that out of all the variables role clarity had the highest variance on job satisfaction in the case of administrative employee of the HE sector.

Influence of nature of work on job satisfaction among employees of higher education

The nature of work consists of four major variables namely, job significance, task variety, work overload, and role overload. The details of the analysis for academic employees and administrative employees are presented below consequently.

i. Academic employees

The multiple regression analysis was applied to assess the influence of variables of nature of work on job satisfaction of the academic employees. The results obtained are presented in Tables 15 and 16.

The results in Table 15 show the individual influence of each variable on the job satisfaction, thus role overload comes out to be a very strong predictor of job satisfaction among the variables listed under nature of work for the academic employees.

Table 16: Coefficients^a for the Influence of Nature of Work on Job Satisfaction Among Academic Employees

Model	Unstandardised Coefficients		Standardised coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.714	.215		3.316	.001
Job significance	.202	.088	.157	2.287	.023
Task variety	-.036	.082	-.031	-.440	.660
Work load	.203	.087	.163	2.319	.021
Role overload	.190	.068	.197	2.770	.006

a. Dependent Variable: Job satisfaction

Table 17: Multiple Regression Analysis for the Influence of Nature of Work on Job Satisfaction Among Administrative Employees

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.601a	.361	.352	.76986	.361	36.980	3	196	.000

a. Predictors: (Constant), Job significance, task variety, work load

Table 18: Coefficients^a for the Influence of Nature of Work on Job Satisfaction Among Administrative Employees

Model B	Unstandardised Coefficients		Standardised Coefficients	T	Sig.
	Std. Error	Beta			
1	(Constant)	.366	.137	2.660	.008
	Job significance	.303	.041	7.420	.000
	Task variety	.466	.103	4.548	.000
	Work load	-.003	.050	-.004	.949

a. Dependent Variable: job satisfaction

Table 19: Multiple Regression Model Summary for The Influence of Climate, Culture and Collegiality on Job Satisfaction Among Academic Employees

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.413a	.171	.136	.74517	.171	4.886	8	190	.000

a. Predictors: (Constant), Supervisor's support, Seniors' support, Working conditions, available resources, Job autonomy, Co-workers' support, Comfort level, mentoring

Table 20: Coefficients^a Influence of Climate, Culture and Collegiality on Job Satisfaction Among Academic Employees

Model B	Unstandardised Coefficients		Standardised Coefficients	T	Sig.
	Std. Error	Beta			
1	(Constant)	.393	.213	1.848	.066
	Supervisor's support	.064	.081	.793	.429
	Seniors' support	.166	.079	2.099	.037
	Working conditions	-.004	.077	-.048	.961
	Available resources	.137	.084	1.642	.102
	Job autonomy	.123	.079	1.552	.122
	Co-workers' support	.136	.081	1.690	.093
	Comfort level	.096	.098	.976	.330
	Mentoring	.006	.071	.088	.930

a. Dependent Variable: Job satisfaction

The set of independent variables for nature of work was tested for causing variance in the dependent variable, job satisfaction with the help of multiple regression analysis and was tested on F- value. The results presented in Table 16 show that the independent variables caused 10% variance in the dependent variable and the significant F- change is under the acceptance region so it can be inferred that nature of work has influence on the job satisfaction in the case of academic employees.

ii. Administrative Employees

The nature of work comprised job significance, task variety and work load experienced by the employees from the

administrative section. Table 17 clearly indicates the level of variance being 35.2% which is quite significantly showing the influence of this set of independent variables on job satisfaction.

The significant F-value also confirms that the independent variables under the nature of work for the administrative employees have a significant variation due to independent variable on the job satisfaction.

Table 18 signifies that job significance was the most important component causing variance in the job satisfaction which is a dependent variable in this case for the academic employees.

Table 21: Multiple Regression Model Summary for Predicting the Influence of Climate, Culture and Collegiality on Job Satisfaction Among Administrative Employees

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.323a	.104	.091	.91170	.104	7.622	3	196	.000

a. Predictors: (Constant), Working conditions, job autonomy, co-workers support

Table 22: Coefficients^a for Predicting the Influence of Climate, Culture and Collegiality on Job Satisfaction Among Administrative Employees

Model	B	Unstandardised Coefficients		Standardised Coefficients		t	Sig.
		Std. Error	Beta				
1	(Constant)	.702	.195			3.591	.000
	Working conditions	.039	.056	.049		.705	.481
	Job autonomy	.402	.092	.303		4.387	.000
	Co-workers support	.055	.086	.045		.641	.522

a. Dependent Variable: Job satisfaction

Influence of Climate, Culture and Collegiality on Job Satisfaction among Academic Employees of Higher Education

The climate, culture and collegiality consisted of supervisor's, seniors' and co-workers' support, working conditions (physical setting), available resources, job autonomy and overall comfort level. The details of the analysis for academic employees and administrative employees are presented below consequently.

i. Academic Employees

The results of the analyses are shown in Table 19. The results indicate that the variance caused due to these independent variable is 13.6% and has a significance F- value below the level of significance (<0.05). Thus the hypothesis regarding independent variable causing variance in the dependent variable can be accepted.

This it can be concluded that the variables climate, culture and collegiality are significantly related to job satisfaction. The most important components of the variables are seniors' support, job autonomy and availability of resources.

ii. Administrative Employees

The results of multiple regression analysis are presented in the Tables 21 and 22.

The results of the analysis indicate that the influence of these variables is quite low on job satisfaction (9.1). The significant F-value shows that there is a certain amount

of variance caused in the dependent variable due to the independent variables. So it can be inferred that climate, culture, and collegiality has an influence on job satisfaction among administrative employees of HE sector.

Out of all the components of the variables, Table 22 shows that job autonomy had the highest influence on job satisfaction among the administrative employees.

Influence of Quality of Work Life on Job Satisfaction Among Employees of Higher Education

The variable quality of work life comprising salary, benefits and work life balance was tested for its influence on job satisfaction among academic and administrative employees of HE sector in Bikaner district. The results obtained are presented below.

i. Academic Employees

To assess the influence of quality of work life components (Salary, Benefits, work life balance) on job satisfaction, multiple regressions analysis results shown in Table 23 confirms that it did not have much variance (7%) caused on the dependent variable for the academic employees. The value of significance of F- test confirms the influence of the variables on the job satisfaction.

The results in Table 5.35 confirm the inference due to significant t-statistic values. Table 24 also shows that the

Table 23: Multiple Regression Model Summary for the Influence of Quality of Work Life on Job Satisfaction Among Academic Employees

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.290a	.084	.070	.77145	.084	5.998	3	196	.001

Predictors: (Constant), Salary, Benefits, work life balance

Table 24: Coefficients^a for the Influence of Quality of Work Life on Job Satisfaction Among Academic Employees

Model B		Unstandardised Coefficients		Standardised Coefficients	T	Sig.
		Std. Error	Beta			
1	(Constant)	1.042	.154		6.778	.000
	Salary	.031	.051	.044	.608	.544
	Benefits	.167	.057	.217	2.947	.004
	Work life balance	.105	.069	.112	1.526	.129

a. Dependent Variable: Job Satisfaction

most significant component of the quality of work-life variable was work-life balance which comprised being able to strike a fine balance between the personal and professional life. The academic employees considered benefits as the second most important component that influenced the job satisfaction.

ii. Administrative Employees

The results obtained for the influence of quality of work life on job satisfaction among the administrative employees are presented in the Tables 25 and 26.

The results obtained in Table 25 clearly indicate that the variance caused due to salary, benefits and work life balance is quite low (5.9%). The F-value is significant enough to conclude that quality of work life as an independent variable

Table 25: Multiple Regression Model Summary for the Influence of Quality of Work Life on Job Satisfaction Among Administrative Employees

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.271a	.073	.059	.92743	.073	5.168	3	196	.002

a. Predictors: (Constant), Salary, benefits, work life balance

Table 26: Coefficients^a for the Influence of Quality of Work Life on Job Satisfaction Among Administrative Employees

Model B		Unstandardised Coefficients		Standardised Coefficients	T	Sig.
		Std. Error	Beta			
1	(Constant)	.830	.206		4.040	.000
	Salary	.124	.051	.177	2.411	.017
	Benefits	.116	.057	.147	2.010	.046
	Work life balance	.084	.095	.061	.886	.377

a. Dependent Variable: Job satisfaction

Table 27: Multiple Regression Model Summary of The Influence of Equity and Fairness on Job Satisfaction Among Academic Employees

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.196a	.038	.019	.79247	.038	1.947	4	195	.104

a. Predictors: (Constant), Distributive teaching load, Distributive advising load, Distributive responsibility, fair treatment

Table 28: Coefficients^a of the Influence of Equity and Fairness on Job Satisfaction Among Academic Employees

Model B		Unstandardised Coefficients		Standardised Coefficients	T	Sig.
		Std. Error	Beta			
1	(Constant)	.997	.267		3.729	.000
	Distributive teaching	.000	.076	.000	-.012	.991
	Distributive advising	.049	.081	.047	.610	.543
	Distributive responsibility	.084	.073	.090	1.150	.252
	Fair treatment	.150	.071	.148	2.104	.037

a. Dependent Variable: Job satisfaction

causes variance in the dependent variable, job satisfaction among the administrative employees.

Table 26 shows that the component causing highest variance among the quality of work life of administrative employees is salary followed by benefits provided by the institution they are working in.

Influence of Equity and Fairness on Job Satisfaction among Employees of Higher Education

The factors equity and fairness was tested on multiple regression and variability on F-test and the results obtained for the academic and administrative employees are presented below.

i. Academic employees

The independent variables equity and fairness comprised distributed workload in terms of teaching, advising, and additional responsibilities to be handled and the fair treatment accorded to each individual in the workplace.

The results are presented in Tables 27 and 28.

The results in Table 27 indicate that the independent variable equity and fairness has a very low influence (1.9%) on the job satisfaction and even the significance F-value is above

the p-value (0.05) the hypothesis that equity and fairness is significantly related to job satisfaction among academic employees is rejected.

Table 26 shows that fair treatment was the component which influenced the job satisfaction the most among the variables equity and fairness for academic employees in the HE sector.

ii. Administrative Employees

The variable equity and fairness (distributive workload and fair treatment) was tested for its influence on job satisfaction among the administrative employees using multiple regression and F-test. The results obtained are presented in Tables 29 and 30.

The results shown in Table 29 clearly depict that the variable equity and fairness has a very low influence in terms of the variance caused (4.7%) on the dependent variable, job satisfaction. But the F-value is significant enough to accept the hypothesis that equity and fairness is significantly related to job satisfaction among administrative employees.

The component fair treatment is having the highest influence on the job satisfaction according to the beta-coefficients. Table 30 shows that the t-statistic was significant for that variable and not for the distributive work load.

The most important variable that caused variance in the dependent variable was the nature of work which consisted of job significance, task variety, work load and role overload.

Table 29: Multiple Regression Model Summary of the Influence of Equity and Fairness among the Administrative Employees

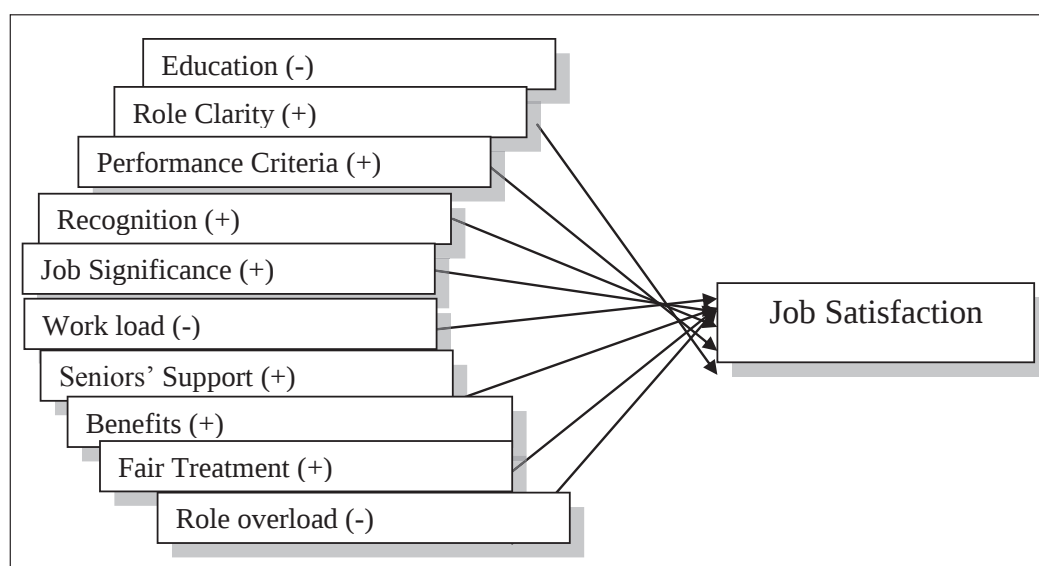
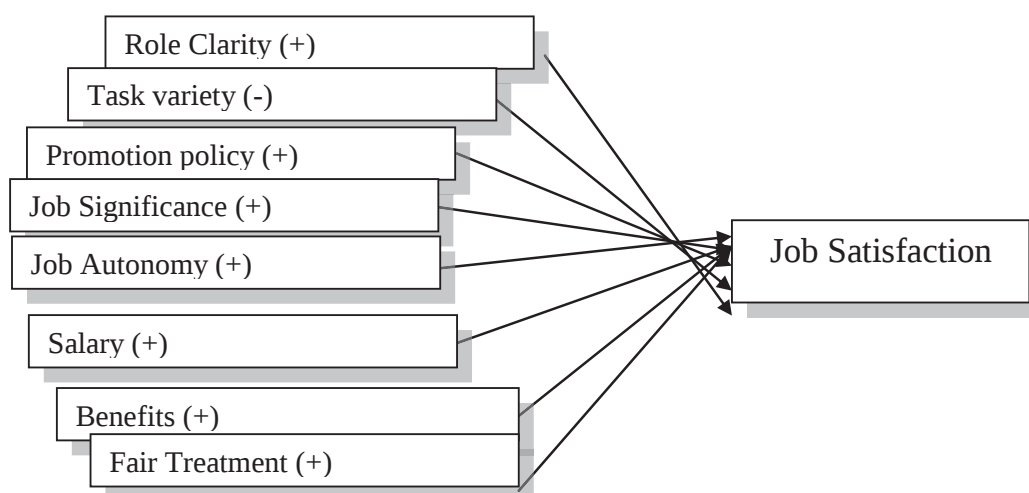
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.237a	.056	.047	.93360	.056	5.860	2	197	.003

a. Predictors: (Constant), distributive workload, fair treatment

Table 30: Coefficients^a of the Influence of Equity and Fairness among the Administrative Employees

Model	B	Unstandardised Coefficients		Standardised Coefficients	T	Sig.
		Std. Error	Beta			
1	(Constant)	1.255	.140		8.978	.000
	Distributive workload	-.065	.065	-.075	-.996	.320
	Fair treatment	.181	.053	.255	3.407	.001

a. Dependent Variable: Job satisfaction

Figure 1: Antecedents of job Satisfaction Among Academic Employees**Figure 2: Antecedents of job Satisfaction Among Administrative Employees**

Antecedents of Job Satisfaction among Academic and Administrative Employees

1. The influence of variance caused in the job satisfaction variable due to the independent variables was found significant for both academic and administrative employees of the higher education institutions. Here the independent variables comprised demographic and job related characteristics.
2. The factors which were most significant predictors of job satisfaction among academic employees were role clarity, seniors' support and benefits (health, pension etc.) accrued. And for the administrative employees were job significance, task variety and salary.
3. It was identified that demographics do have not much significant influence on job satisfaction amongst the employees of higher education in Bikaner which is consistent to the earlier research findings reported by Scott & Taylor (2005) and Ghafoor (2012). Below are the models of job satisfaction among academic and administrative employees.

CONCLUSION

Results reported in the current study have several policy and practical implications for higher education institutions of Bikaner. Empirically testing the extent to which selected work-related factors affected job satisfaction, the present study identified several HR practices which institutions can adopt to improve the satisfaction and ultimately the performance of their employees. In relation to *role clarity*, the institutions should avoid exposing their employees to frustrating work situations such as unclear job information, unclear reporting structures and unjustified workload. *Performance appraisal* was a positive predictor of job satisfaction. Performance appraisal which is used to determine employees' rewards and other benefits will motivate them to update their knowledge and skills and therefore enhance their attachment to their institutions (Paul & Anantharaman, 2003). Consistent with previous studies, *promotional opportunities* was a positive predictor of job satisfaction. *Pay satisfaction* was a positive predictor of job satisfaction, and a negative predictor of turnover intentions among academic employees and a positive predictor of extrinsic job satisfaction among administrative employees.

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