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THE ROLE OF A SATISFIED TEACHER IN UPLIFTING THE EDUCATION STANDARDS: AN ANALYTICAL STUDY TO IMPROVE THE QUALITY STANDARDS OF MANAGEMENT EDUCATION IN INDIA

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Abstract

Job satisfaction is referred to as an attitude of an individual towards its job; it is a state or behaviorresulting due to various extrinsic and intrinsic factors. The job satisfaction concept was first defined by (Hoppock in 1935), for him, job satisfaction is a result of emotional, physical, and environmental factors to which an individual is exposed. Teachers need to be satisfied with their job; however, the real earning of a teacher is the recognition that an academician gets for his contribution in upliftment of the education system, a teacher desires for acknowledgment for his work, a gesture as small as an appreciation mail can do wonders in boosting the confidence and motivating a teacher. But the irony is, this remains an unmet need of the teacher resulting in dissatisfaction, absenteeism, demotivation and eventually reflecting in poor quality of education. The present study is to examine those factors that can add to satisfaction of an academician from management department in a higher education setup. A total data of 300 teachers from different public and private Universities situated in Lucknow city of Uttar Pradesh India was taken. SPSS software version 22 was used for data analysis. Factor analysis was done at the first stage. The Kaiser's criterion technique was also applied to determine the factors (components) to be retainedfor the factor analysis. Only factors with an Eigen value of 1.0 or more were retained for analysis.Kolmogorov-Smirnov's and Shapiro-Wilk's tests of normality were also used to test if the generated components (factors) are normally distributed, and the p-values of less than 0.001 for all the components indicated no normal distribution. Overall, the results suggest that teachers' payor salary, growth opportunities and job enrichment at work are the top three job characteristics variables that contribute to teacher job satisfaction. The result shows that salary and job enrichment add to job satisfaction of teachers. The outcome of the study was further substantiated by variousprevious research work.

As future scope of study the researcher wants to extend similar research in various othergeographical location of India and further the questionnaire will be modified, as students will be the new respondents.

Keywords: *Job enrichment, satisfaction, salary and growth opportunities*

INTRODUCTION

Satisfaction is generally viewed as positive feeling or emotion that a person might have with regardto their job, person, situation etc. Dissatisfaction is a feeling of anger, discontentment, and disappointment, frustration, towards job, work environment, culture, person or situation. The importance of job satisfaction has been a concern since eternity, prior researches have proven thata satisfied employee is many folds important than a highly automated machinery, or business strategy.Job satisfaction is an emotional pleasant and positive status which is resulting from the job assessment or job experience of an individual **(Saatchi, 2008).**Job satisfaction is a combinationof psychological, physiological and environmental circumstances, which cause a person to truthfully say "I am satisfied with my job" this statement given by **Hoppock (1935)**marked the origination of a new concept of job satisfaction. Motivation is a feeling that is present or absent under the presence or absence of satisfaction, which is caused by certain factors **Nelson and Quick(2003).**Job satisfaction is a measurable behavior and there are various variables that lead to satisfaction of an employee towards job hence measuring job satisfaction has often been the focusof researchers and organizational management interested in identifying the determinants of job satisfaction **(Ellickson& Logsdon, 2001; Jamieson & Richards, 1996).**

However, several globally acclaimed tools or scales are available to assess the job satisfaction level of employees in different context. Few tools measure job satisfaction in general and few measures are facet specific these facets make up a job, the presence or absence of these facet, arequiet influential in determining the level of satisfaction or dissatisfaction of an employee. In this paper, an attempt is made to critically review the globally accepted facet specific job satisfaction measuring instruments and identify few facets after a series of steps (factor extraction,

using PCA).Further the researcher attempts to establish an equation among job satisfaction and the various factors leading to satisfaction of a teachers towards its job.

The number of scales developed by analysts to measure job satisfaction has increased lately. Stillthe interest and need for advancement of new and normalized tools is expanding generally, the reason can be, either deficiency of formal tools or the lack of reliability and validity of existing tools in some specific context. However, the present study is an attempt to identify the steps that lead to development of a reliable and valid tool for measuring job satisfaction of faculty membersin Indian context. The researcher has identified 5 standardized tools for measuring job satisfaction.

Further review of previous studies has established that these tools were used for measuring job satisfaction in different context. The researcher has picked up the common items from the standardized tools and attempted to identify the reliability and validity of the items selected. The researcher performed Exploratory Factor Analysis (EFA) to identify various components. Furtherfactor scores were calculated. The components were named on the basis of the facets of previous tools identified in the literature review for measuring Job satisfaction. A cross validation of facetsidentified by EFA will be finally done through CFA and A tool for measuring the job satisfaction of academicians 'in Indian context after cross validation can be the future scope of study.

REVIEW OF LITERATURE

Studies show job enrichment had a strong positive relationship with employee satisfaction, employee motivation, employee performance, Azeez.O.R ; Abimbola.M.M (2016), Vijay.V.M, Indradevi.R (2015). Some study further suggests that job enrichment and job enlargement have direct impact on employees' satisfaction and performance, Saleem.S; Shaheen.A.W;Saleem.R (2012).

Mahmood.A; et.al (2018),Magaji, N; et.al (2017)suggested that job enrichment adds to commitment through feelings of satisfaction towards work.

Interestingly Adeyemo.S.K; et.al (2015) tried to give a new dimension to job enrichment by emphasizing on its use in decision making. It was suggested that job enrichment predicts success of administrators; hence focus should be given on enhancing experience and education of employees. A relationship was also drawn by Hackman, J. R., et.al (1971) job re designing ,job satisfaction and decision making. This was also proved by Nzewi.N.H, et.al (2017), according to them job autonomy and commitment influences the productivity level of the organization.

Job performance and job enrichment to have been found to be relatedIra Feder (1999).Further to this Parker.K.S (1998) in his longitudinal analysis showed that increased job enrichment and increased quality of communication predicted the development of greater self-efficacy.

The results provided by Palomo.R.D, et.al (2020), shows evidence about the positive relation between employees job enrichment, job satisfaction and commitment, and the intermediary role ofsatisfaction between enrichment and commitment,females were seen more committed than male with enriched job. Although it's is deemed that job enrichment enhances job satisfaction which has been researched by various researchers as mentioned above but it is also found that on specialcases it becomes a deterrent for job satisfaction, Asl,M.I, et.al (2015), Orpen,C. (1979).

Various previous studies show fair salary system had a strong positive relationship with employeesatisfaction, employee motivation, employee performance, Bahr, S.M., Anwar, Sanusi.A., Asih, P. (2017),Singh, V.& Mohan, D.N.(2020),Nayak, P., & Barua, M. (2020) exhibited the significantdifference of private sector on job fulfillment of employees as compared to the public sector. Shrestha, I. (2019) conducted a study and revealed that demographics like monthly income and designation came first and second respectively while influencing faculty job satisfaction. Mahmood, A., et al (2019) The research focused on the importance of salary and other monetary benefits, and the everlasting impact of financial factors on job satisfaction and commitment of employees. Research conducted by V. Olumuyiwa, O.et al (2018) states the importance of the public or private status of universities on the job satisfaction of academicians'. Lien,T.P. (2017) , Stankovsk,G. , Angelkoska, S., Osmani, F., Grncarovska, S. (2017), Bahri, S.M., Anwar, Sanusi.A., Asih, P. (2017) stated that Universities should work on Salary and Fringe benefits, to get a substantial improvement in faculty job satisfaction.

Shafi, M. (2016), Perera, H.C., Kajendra, K.Dr. (2016), Chawla, L., Tripathi, P.S.Dr, (2015) indicated the importance of the salary system on job satisfaction. Pan, B., Shen, X., Liu, L., Yang,Y., and Wang, L., (2015) identified the positive influence of salary on job satisfaction. Age cans also are linked to the level of job satisfaction. Unnamalai, T. (2015), Masum, M.K.A. et al. (2015)established that salary plays an important role and ranks first in determining faculty job satisfaction.

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REVIEW OF TOOLS USED FOR MEASURING JOB SATISFACTION

The work began with an organized search, using a combination of keywords (i.e., "employee," "satisfaction," or "dissatisfaction" with "job", "Tools used for measuring job satisfaction", "Tools",) An abundance of research work on measurement of job satisfaction of employees usingvarious tools was found. Work done by Pepea.A, et.al (2017) Saane.V.N, Sluiter.K.J, Verbeek
.M.A.H.J and Frings-Dresen.W.H.M (2003, Murrells.T, Clinton.M, Robinson.S (2005), Banerjee,
P. A., & Lamb, S. (2016), Ganzach, Y. (2003) are few evidences in support of the statement. However less work has been done in measuring the satisfaction level of academicians' in higher education sector notwithstanding the fact that job satisfaction is associated with positive outcomesat work Murrells.T, Clinton.M, Robinson.S (2005),Ehsan Malik.E.M(2010)like reduced likelihood to report burnout Kalliath & Morris (2002).

Table No1.1. Various Job Satisfaction Indexes

Sl.No.	Indexes	Developed By-	Total Items and Facets	Facets In Each Tool
1.	**JDI** (Job descriptio nIndex)	Smith et al. 1969	Items-72 Facets-5	Work, pay, promotions, supervision and co-workers. **Fields, 2002**
.	**JSS** (Job Satisfaction Survey)	Spector 1997	Items-36 Facets-9	Pay, promotion, supervision, benefits, contingent rewards, operating procedures, co-workers, nature of work and communication. **Fields, 2002**
3.	**MSQ** (The Minnesot a Satisfaction Questionnaire)	Weiss et al. 1967	Items-120 Facets-20	ability, utilization, achievement, activity, advancement, authority, company policies and practices, compensation, co-workers, creativity, independence, moral values, recognition, responsibility, security, social service, social status, supervision-human relations, supervision-technical variety, and working conditions **Fields, 2002**
4.	**Job Diagnostic Survey**	Hackman and Oldham 1980(used for job enrichment)	Facets-5	Skill variety ,task identity, significance,Autonomy, Feedback from the job
5.	**Job Satisfaction Index**	Schriescheim and Tsue, 1980	Facets-6	Work ,supervision, co-workers, pay, promotion opportunities and the job in general **Fields, 2002**,
Common Facets Used in all Tools				
Work, pay, Promotions, Rewards, Advancement, Recognition, , Working conditions, Feedback from the job, Skill variety ,Task identity				

Source: Author's own analysis

Facet approach for measuring job satisfaction is all about establishing a positive relation between job components'(like pay, promotion, work, opportunities, rewards, advancements, working condition or environment)and satisfaction among employees. Facets have the power to lead to satisfaction and dissatisfaction, Locke's (1976).The above models were studied in different context like school teachers (Pepea.A, et.al 2017),nursing staff (Kumar A 2015),dairy workers (Kulik, C.T., Oldham, G. R., &Langner, P. H. 1988),restaurant employees(Hancer, M., & George, R. T. 2003),health employees (Batura, N., Skordis-Worrall, J., Thapa, R., Basnyat, R., & Morrison, J.2016),university workers (Stanton, J. M., Sinar, E. F., Balzer, W. K., Julian, A. L., Thoresen, P.,Aziz, S., Fisher, G. G., & Smith, P. C. 2002).No such work was seen on faculty members form higher education sector irrespective of specialization.

RESEARCH METHODOLOGY

Objectives

[1] To identify the factors that lead to faculty job satisfaction.
[2] To identify the impact of demographics on faculty job satisfaction.
[3] To identify if satisfaction of job predicts quality education.

Hypothesis

H01: - Demographics do not have a significant impact on job satisfaction of faculty members.H02: Job satisfaction does not predict quality education.
As a first step researcher carefully examined the pre validated tools related to the construct of jobsatisfaction. Examining the tools helped the researcher to establish items and facets of the desiredconstruct to ensure that the content of the scale is focused on the actual domain of interest, ratherthan unrelated areas. In the present research the researcher identified 35 items; a questionnaire wasframed by rephrasing the items in the tools that were reviewed as per the Indian context.
Population: The survey was conducted among 300 management faculties of selected public and private universities of Lucknow region. The faculties were identified on the basis of **demographics**: (Gender, marital status ,highest qualification, public or private nature of university,)
Sampling Technique: Simple Random Sampling

Sampling Location: Lucknow, capital city of Uttar Pradesh: India

Reliability: Determining reliability statistics is an important issue in scale advancement. Reliability relates to the repeatability, steadiness or consistency of a device. Cronbach's alpha statistic is one of the methods for measuring internal consistency of the questionnaire.
Reliability Statistics

Table No: 1.2

Cronbach'sAlpha	N of Items
.801	35

Factor analysis

The reason for an exploratory factor analysis is to dissect scores on a few items to check whetherthey can be decreased to basic dimensions. Those items that are exceptionally related with one another will load on one factor. The items that are estimating one construct should load on one factor and those estimating another develop should load on an alternate factor.To proceed the researcher conducted the KMO Barletts' test for data adequacy; the result showed that for EFA theadequacy is sufficient and significant.

KMO,Barletts' Test

Table No: 1.3

Kaiser –Meyer-Olkin Measure of Sampling Adequacy		.704
Barletts' Test of Sphericity	Sig	.000

Factor Extraction: For factor extraction all those items which had extraction value of communalities of less than 0.4, indicating that they did not fit well with the factor solution and thus these items were not required and hence they were dropped. In the present study **74.348% variance** for five components were reported and all the items having Eigen value >1 was considered. The scree plot clearly indicated five factor solution and number of iterations were 25.According to studies by Tanimura et al. 2011; Sewitch et al. 2003; Clark and Watson (1995), it was found that almost 95.3% studies were reported using at least one type of factor analysis—EFAor CFA. Further according to Bastos et al. (2010) and Ladhari (2010) found EFA to be the more commonly utilized construct validity method when compared to CFA.

3.7Factor Score: Further the researcher calculated the factor scores for the identified 5 factors.
Component 1(Opportunity for Promotion):
0.946* item1 + 0.616* item2 + 0.946* item3 + 0.946* item4
Component 2(Pay):
0.637*item1 + 0.753*item2 + 0.956*item3 + + 0.956*item4

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Component 3(Enrichment of Job):
0.995*item1 + 0.995*item2 + 0.995*item3 + 0.970*item4 + 0.987*item5 **Component 4(Opportunities for Research & Development):** 0.601*item1 + 0.692*item2 + 0.783*item3 +0.584*item4
Component 5(Environment at Work place):
0.700*item1 + 0.794*item2 + 0.693*item3

Hence the first object was established and 5 parameters leading to job satisfaction of faculty members in higher education sector were identified.

Analysis for establishment of Objective 2:
Tools used for establishing objective 2: -Non parametric tests were used to find if demographics show significant difference on various factors that lead to job satisfaction of faculty members. Further Simple Linear Regression was conducted to explore the impact of the identified factors onimprovement of education quality and hence to establish the second objective.
Data Collection
I- Simple random sampling was used to collect data from 300 management faculties of selected public and private universities of Lucknow region.

Gender	Industry	Marital status	Qualification
Male	Public	Married	PhD Completed
Female	Private	Unmarried	PhD Pursuing

Table 1.4: Demographics of sample

II -The normality of data was checked by using K-S test (Table1.5). It was found that the data is non-normal, so Mann-Whitney U test and Kruskal-Wallis were used to find difference created bythe demographics on the dependent variables.

	Opportunity for promotion	Pay	Enrichment of Job	Opportunities for Research& Development	Environment at Work place
K-S Statistics	5.245	4.477	1.821	1.390	1.970
Sig	.000	.000	.000	.011	.000

Table 1.5: Table for normality of data- K S Test Statistics

Further to test **Hypotheses01 and to establish objective number 2**, the researcher conducted thedata analysis utilizing nonparametric test statistics equivalent to T-test, which are Wilcoxon rank-sum test or normally called Mann Whitney U test to assess differences in job satisfaction across married and unmarried, male and female faculties, having a difference in designation from different public and private universities, with or without a Ph.D. degree. Studies by various authorslike **Singh.V. Mohan. D.N. (2020); Hanif. Q. et al (2017), Madan.M. et al (2019), Hanaysha.**
J. (2016), Nayak .P. & Barua.M. (2020); Szromek. R.A. and Radosław Wolniak.R. (2020.)
are provided as evidence to authenticate the usage of the above-stated tools. **(2016)** provided goodevidence for use of the **Kruskal Wallis H test**. The results indicated that demographics had a significant impact on enrichment of job ,pay and opportunities for promotion only, the demographics showed no significant difference on the other parameters. Hence the researcher hasprovided the required tables only, in order to avoid abundance of data analysis.

Job enrichment			
Demographic	**Z statistics (Mann-Whitney U test)**	**P statistics**	**Level of significance**
Gender	-.901	.367	P>.05
Public/Private University	-2.089	.037	P<.05
Marital Status	-.346	.729	P>.05
Highest Qualification	-.495	.621	P>.05
Pay			
Demographic	**Z statistics (Mann-Whitney U test)**	**P statistics**	**Level of significance**

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Gender	-1.055	0.292	P>.05
Public/Private University	-5.325	0.00	P<.05
Marital Status	-0.259	0.796	P>.05
Highest Qualification	-0.293	0.77	P>.05

Opportunities for Promotion			
Demographic	**Z statistics (Mann-Whitney U test)**	**P statistics**	**Level of significance**
Gender	-1.808	0.071	P>.05
Public/Private University	-5.053	0.00	P<.05
Marital Status	-0.099	0.921	P>.05
Highest Qualification	-0.197	0.844	P>.05

Table 1.6 showing results for Mann-Whitney U, Z and p values for enrichment of job, pay and opportunities for promotion.

Research objective 2 was fulfilled and null hypothesis was partially accepted and partially rejected,as it was found after analysis that demographic of public and private nature of university does havea significant difference on enrichment of job, pay and opportunities for promotion, however the other factors do not show any significant impact of demographics. Similar results were seen in many previous types of research, the work done by **Salman Khalid, Muhammad Zohaib Irshad , Babak Mahmood ,2012, Saif-ud-Din*, Khair-uz-Zaman** & Allah Nawaz 2010** , substantiates the results of the present research. Both the researches propagate that the public or private nature of universities does have a significant difference in factors leading to job satisfaction.

Under the **objective three** the researcher desires to identify if job satisfaction leads to enhancementof quality education imparted at higher education sector. Considering the result of above test, it is reported that opportunities for promotion, pay and enrichment of job leads to satisfaction. Hencethe researcher assumes that with every increase in pay, promotion opportunity and enrichment ofjob the quality of work is deemed to enhance. So, to **test hypotheses 02** and establish objective 3the researcher conducted linear regression. Work done by Naseer Khan, S.et.al, (2020) , Donald
W. Albright et,al.(1972) support the statement that, job satisfaction strongly predicts improved quality of performance ,retention, loyalty and commitment towards the organization.

Here quality of education is the criterion variable while Opportunities for Promotion, Enrichmentof Job, and Pay are predictor variables. To analyze the hypotheses, simple linear regression was conducted, preliminary tests were conducted in all three regression models to satisfy the prerequisites. Further regressing overall quality of education with all 3 factors the reports show that the data fits the regression equation quiet well and Opportunities for Promotion, Enrichment of Job predict Job satisfaction.

Annova

Model	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
Regression	212.522	5	42.504	157.892	.000[b]
Residual	79.144	294	.269		
Total	291.667	299			

The regression equation can be given as:

Job satisfaction **=** β_0 **+** β**promotion opportunities+** β**fair salary +** β**job enrichment +** β**opportunity for research+ work environment**

Since in the **Coefficients** table only promotion (p=.000) and job enrichment (.050) are significant,the regression equation for the current model will be.

Job satisfaction **= (-3.737 +.506*promotion+-.011*job enrichment)**

The negative value of beta in job enrichment states that each unit of increment in job enrichmentwill reduce one unit job satisfaction and as result the performance quality will decline.

Coefficient table and model summary

Model	R	R^2	Adjusted R^2	Std Error of the Estimate	List of Predictors	Un standardized Coefficients	Standardized Coefficients	t	Sig.

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						B	Std. Error	Beta		
1	.854	.729	.724	.5188	(Constant)	-3.737	.585		-6.392	.000
					promotion1	.506	.046	.766	11.068	.000
					Salary1	.023	.017	.093	1.353	.177
					JobEnrichment1	-.011	.006	-.057	-1.861	.050
					OR1	-.009	.017	-.016	-.533	.595
					WorkEnvironment1	-.007	.024	-.009	-.291	.771

Table 1.7 Dependent Variable: Over all satisfied with my job

The adjusted R^2 adjusts for the number of terms in the model. Importantly, its value increases onlywhen the new term improves the model fit more than expected by chance alone. Here adjusted $R^2$is .724. Which shows a higher prediction (72.4%)

CONCLUSION

35 items were identified after a through literature review, however after conductingEFA total 5 parameters for job satisfaction were reported, the items that had desired eigen value were considered and rest items were discarded, the researcher had used previously established tools used to measure job satisfaction to collect the facets, however they were reframed as per requirement of the present study. The researcher ha sfurther established that the public and privatenature of University have a significant impact on pay, promotion, job enrichment,the work reported by **Singh.V. Mohan. D.N. (2020); Hanif. Q. et al (2017), Madan.M. et al (2019), Hanaysha. J. (2016), Nayak .P. & Barua.M. (2020); Szromek. R.A. and Radosław Wolniak.R.(2020.)** can be used as evidence to substantiate the authenticity of the present work. The main aimof this research work was to determine the relation between satisfaction of employees towards their job and its impact on quality of performance , the researcher achieved the third objective and has provides qualitative evidence that job satisfaction factors like pay and job enrichment do predict job satisfaction .However few previous researches have already established that improvedquality of performance is predicted by job satisfaction, Mohd Nasurdin, A., et.al (2020), Mathis and Jackson (2000), report of Vermeeren et al. (2014), Hameed et al. (2014), (Armanu, 2017; Qureshi & Sajjad, 2015), supported the statement that there is a significant positive relationship between employees' job satisfaction and their job performance. Moreover factors like compensation and job enrichment have a mediating influence on job satisfaction , and hence indirectly they are positively associated with increased job performance, satisfaction and productivity. Since the sample comprised of faculty members from higher education sector, and their performance at work determines the future of the nation, hence the administration should payrequired concern regarding the reassessment of their salary on timely basis.

SCOPE FOR FURTHER STUDY

The present study also intends to further conduct cross validation usingCFA. This study was confined to the geographical location of Lucknow, the researcher suggests that after the validation of the scale using CFA, further the standardized tool can be used PAN INDIA.

REFERENCES

[1] Hinkin TR (1995) A review of scale development practices in the study of organi-sations. Journal of Management 21: 967-988.
[2] DeVellis RF (2003) Scale development: Theory and application, Thousand Oaks, CA: Sage Publications (2ndedn).
[3] Schriesheim, CA, Eisenbach RJ (1995) An exploratory and confirmatory factor analytic investigation of item wording effects on the obtained factor structures of survey questionnaire methods. Journal of Management 21: 1177-1193.
[4] Bryman A, Cramer D (1997) Quantitative Data Analysis with SPSS for Windows. Routledge, London.
[5] Kline P (1993) The Handbook of Psychological Testing. Routledge, London.
[6] Ferketich S (1991) Focus on psychometrics: aspects of item analysis. Research in Nursing and Health 14: 165-168.
[7] Ferguson E, Cox T (1993) Exploratory factor analysis: a user's guide. International Journal of Selection and
[8] Assessment 1: 84-94.
[9] Oppenheim AN (1992) Questionnaire Design, Interviewing and Attitude Measurement. Pinter, London.
[10] Kumar A (2015) Review of the Steps for Development of Quantitative Research Tools. Adv Practice Nurs 1:103. doi: 10.4172/2573- 0347.1000103
[11] Saane.V.N, Sluiter.K.J, Verbeek.M.A.H.J and Frings-Dresen.W.H.M (2003).Reliability and validity of