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OBJECTIVES

HYPOTHESES

RESEARCH METHODOLOGY

RESULTS & DISCUSSION

FINDINGS

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MOTIVATIONAL PREFERENCES OF TEACHERS WORKING IN PRIVATE ENGINEERING INSTITUTIONS IN WESTERN INDIA REGION: AN EXPLORATORY STUDY

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ABSTRACT

Teachers form a part of the triad supporting education, the other two being students and infrastructure. They play an important role in facilitating learning in students. Motivation has direct effect on performance of teachers. A set of motivated teachers can do wonders in developing self learning capability in students to take on the challenges in future. In a survey based approach a well structured questionnaire has been used to find responses regarding motivators of teachers working in private engineering institutes in Western India. Performance of the teachers in terms of student feedback, peer review, number of research papers published and conferences attended has been taken as a measure of their overall motivation. Descriptive statistics and correlation analysis have been used to find effects of motivators on performance of the employees. Effect of demographic variables like age, experience, education and gender on motivators has also been studied. Our study suggests a significant link between satisfaction of intrinsic motivators and performance of teachers.

KEYWORDS

Autonomy, Demographic Variables, Growth Opportunities, Motivation, Performance.

INTRODUCTION

Motivation has been defined as amount, quality and direction of employee's effort that energizes their behaviour within the work environment (Perry and Porter 1982). The growth of a nation depends on all-round development of its various sectors encompassing entire population. Education is the key element in this process of development of people (Tripathi et al, 2006). Higher education enhances employability of students by developing various skills. These students contribute effectively to different sectors of national economy. Higher education rests on a triad formed by teachers, students and infrastructure. Teachers play an important role in facilitating learning, especially self learning, in students.

Human resource management of teachers in private engineering institutions can be defined as strategic and coherent approach to management of teachers. The teachers may be motivated due to intrinsic or extrinsic factors. The intrinsic factors may be work culture, job satisfaction, autonomy and opportunities for growth like training and development. The extrinsic factors could be salary and other monetary benefits, rules and regulations of the central/ state government, regulating agencies (UGC, AICTE etc). It may not be easy to change the rules and regulations. Similarly it may not be easy to reduce the gap between expected and received salaries or make it comparable to that in other sectors of economy. What could be done easily on the other hand is to address the intrinsic factors. These also have been found to affect motivation to a large extent (Borzaga and Tortia, 2006). This study concentrates on intrinsic motivators of the faculty and what could be done to enhance these without involving large monetary resources way beyond the capability of most of the private institutions.

Motivation is not constant. It varies with age, education, experience etc. Therefore it is very important for institutions to know what gives its faculty intrinsic motivation and if the intrinsic motivators are same for its entire faculty. The management may then take appropriate action to enhance motivation. The effects of age, experience, education and gender of teachers on intrinsic motivation are studied in the empirical analysis. The study is limited to teachers in private engineering institutions. Responses from teachers of a number of institutions from Western India have been obtained and analysed statistically with SPSS 16 in order to obtain inferences.

LITERATURE REVIEW

Muchinsky (1996) defines motivation as "the individual's desire to demonstrate the behaviour and reflects willingness to expend effort". Motivation is also defined as "the willingness to exert high levels of effort to reach organizational goals, conditioned by the effort's ability to satisfy some individual need" by Robbins, Coulter and Coulter (1998). Motivation could be broadly classified into two types extrinsic and intrinsic. Aronson, Wilson and Akert (2002) have reported "Extrinsic motivation refers to external factors which can be measured in monetary terms such as salary and bonuses etc". These are external to the people. Intrinsic motivation refers to internal factors such as interest, enjoyment, choice, perceived competence, relatedness etc. Satisfaction of these factors causes and maintains intrinsic motivation as brought out by Gagne and Deci (2005). Intrinsic motivation is long lasting as reported by Deci and Ryan (2000) as well as Ryan and Deci (2000).

Need for autonomy concerns experiencing choice and feeling like initiator of one's own actions. It is essential for ongoing psychological growth, integrity and well-being. Satisfaction of these needs will enhance intrinsic motivation. Thwarting of this need on the other hand will undermine intrinsic motivation. Deci, Connell and Ryan (1998) have found that managerial autonomy support, defined as managers' acknowledgement of their subordinate's perspective, providing information in a non controlling way, offering choice and encouraging self initiation was associated with employees' being more satisfied with their jobs, having a higher level of trust in management and positive work related attitudes. Gagne and Deci (2005) have found autonomous motivation to be related to organisational commitment. Hence autonomous motivation is important if employees are to accept the organisation's goals and be committed to working towards them. Baard, Deci and Ryan (2004) have reported that in a workplace setting supervisor's understanding and autonomy matter a lot for intrinsic motivation of employees. It would be appropriate to assume that teachers will also exhibit similar trends in their motivation.

Compensation and benefits are important factors in competitive market environment but some intangible motivators like job design, work environment, feedback, recognition and empowerment or decision making/ participation are also the potential factors for motivating teachers in higher education (Rasheed et al, 2010). However finding what employees want and then alignment of individual and institutional needs can be a very complex task. Although money is an influential factor at every stage but it is not necessary that money alone can increase motivation of every worker. There are intangibles like empowerment, recognition, feedback etc that are primary motivators for workers' inspiration to perform effectively (Fuhrmann, 2006). Dysvik Anders and Kuvaas BRD (2008) have also found significant correlation between performance and empowerment of personnel in work settings.

An institution cannot sustain without motivated teachers in the current scenario which is highly competitive. The teachers at higher education level play an important role in institution's success and its goodwill among students and academia. Their motivation has significant influence on their delivering knowledge and grooming of the students as global citizen and masters in their field. Filak and Sheldon (2003) have opined that motivation is crucial to long term success and performance of any educational system. Ololube (2004) explored the same point of view that increased motivation of teacher's leads to an increase in productivity that gives boost to the educational systems; hence the function of educational motivational methods cannot be underemphasised. According to Praver et al (2008) teacher's empowerment is having academic freedom meaning planning lessons, formatting syllabus and selecting text books to recommend to their students on their own and not by department.

Motivation of people is not constant. It also varies with age, education, experience, aspirations, gender of people, level in organization and stay in the organization.

The discussion above provides a canvas of factors broadly classified into two groups namely extrinsic and intrinsic affecting teacher motivation. It would be within reach of all institutions to work on intrinsic motivators identified in the study to energize teachers and enhance their performance. The aim of the paper is to study the effect of fulfilment of these intrinsic and non monetary motivators on performance(overall motivation) and evaluate the impact of demographic variables like age, experience, gender and education on these parameters for the teachers.

METHODOLOGY

Based on above we selected a number of private engineering institutions in Western India considering the size and age of institution as well as standing in market. We then targeted a large number of teachers working in these institutions directly for getting responses. All responses were obtained through emails in soft copies.

CHOICE OF SAMPLE SIZE AND DEVELOPMENT OF QUESTIONNAIRE

Aczel (1999) argues it is necessary to have at least 30 responses to have statistically reliable result. In order to have 30 responses in each subgroup based on age, education, experience and gender we approached a large number of teachers in various engineering institutions directly. The questionnaire developed for the study is based on General Causality Orientation Scale used by Deci and Ryan (1985a), Job satisfaction Instrument by Schnake (1983) and Perceived Autonomy Support: The Climate Questionnaire used by Baard et al (2004). It is in two parts A and B. It is placed at Appendix A. Part A contains personal information about the respondent. Part B contains 31 questions on various motivators. A Likert scale of 1-5(1-Strongly disagree, 2- disagree, 3-neutral, 4-agree, 5-strongly agree) has been used in the questionnaire. The questionnaire has been tested for internal consistency by calculating Cronbach alpha. The value for the entire questionnaire comes to be 0.96. It is considered to be more than adequate. Last two questions in part B were open ended questions to capture feelings of respondents.

MEASUREMENT

Measurement of various variables has been done to extract relationship between motivators and performance as a measure of overall motivation. These variables have been clubbed under independent and dependent variables category for description and subsequent analysis as follows:

INDEPENDENT VARIABLES IN THE STUDY

Intrinsic motivators: These are treated as independent variables and are listed below:

- **Autonomy:** It concerns experiencing choice and feeling like initiator of one's own actions. Measure of autonomy is through response to questions like I enjoy/feel like working here, I could select way of working/timing, My superiors are supportive of my actions, I am not unnecessarily worried if I make a mistake and I am encouraged to take initiative. (Q Nos 1 - 3)
- **Role Clarity:** It means the teachers are clear about their job. They understand mission, goals and objectives of the institution. They also understand how quality is defined and measured with respect to their work in the institution.(Q Nos 23 -25)
- **Opportunity for growth:** It includes training and development also. The respondents are clear about opportunities available in the institution, discrimination if any, management's attitude towards quality in work, Equal opportunity for self development, favourable institutional policies towards self development and prompt feedback to help in self development. (Q Nos 12 – 15, 27-29).
- **Communication:** Free and unhindered communication channels available in institution, open culture, decisions based on logic, prompt feedback. (Q Nos 19 -22, 26)
- **Job satisfaction:** Recognition of good work done, satisfaction with working environment, policies and pleasure/ comfort of working with subordinates, peers and seniors. (Q Nos 7-11)

EXTRINSIC MOTIVATORS

- **Extrinsic motivators:** Comparable salary and compensation at par with industry. (Q Nos 4 – 6)
- **Job security:** Security of job in the organisation and no unnecessary worries on making a mistake. (Q Nos 16 – 18)

DEPENDENT VARIABLE

Performance: Performance of an individual depends on his/ her ability and motivation. Employee performance is judged by combining student feedback, peer review/ annual report, number of papers presented in national/ international journals and number of national/ international conferences attended in last three years. Stated algebraically the principle is:

Performance = f [ability X motivation](Aswathappa K, 2005)

Ability refers to the skill and competence of a person to complete a given task and alone is not enough. Context also plays part in performance. But it has not been considered as it remains similar for all people under same settings. Employee performance therefore has been taken as the indicator of their overall motivation level.

SUB GROUPING OF VARIABLES

The information of the respondents in terms of age, total experience, educational qualification and gender has been used to check their effect on performance (overall motivation). Accordingly the respondents have been grouped in three categories as per age and their total experience. The respondents have been grouped based on their educational qualification and gender also as shown in the Table No 1.

TABLE NO. 1: SUB GROUPING OF VARIABLES

Variables	As Appearing in Analysis	Type	Definition/description
Gender	M F	Binary	Male Female
Age	Age group	Discrete	Low age group = upto 30 years of age Medium age group = between 30 and 40 years of age High age group = above 40 years of age group
Education	Graduate Postgraduate Miscellaneous	Discrete	Graduate= graduate in any stream including engineering Post graduate = higher degree in any discipline Miscellaneous = MBA, MPhil, PhD
Experience	Total experience	Discrete	Low exp group = upto 5 years of exp Medium exp group = between 5 and 10 years of exp High exp group = above 10 years of exp

RESULTS AND DISCUSSIONS

Present work has been carried out through well structured questionnaire based survey of a large number of faculty working in private degree engineering institutions in Western India. In addition email exchanges were also carried out to elicit their views. It uses Likert scale of one to five to record strength of response. Sample size for the study is 94. It is a large sample in terms of statistics (Aczel 1999). The respondents are from a number of institutions spread over the chosen geographical area. It ensures even spread in terms of demographics in response from population.

TABLE NO. 2: SURVEY DETAILS OF TEACHERS

	Gender	Age (years)	Experience (years)	Education
Male	75			
Female	19			
Age upto 30 years		21		
Age bet 30 - 40 years		28		
Age above 40 years		45		
Experience upto 5 yrs			17	
Experience bet 5 - 10 yrs			14	
Experience above 10 yrs			63	
Graduate				23
Post Graduate				46
Miscellaneous				25
Total	94	94	94	94

A total of 105 teachers from a large number of institutes responded to our questionnaire out of which 94 were found usable. The respondents are from 24 years of age to more than 60 years. The teaching experience varies from less than one year to over 40 years with average being 15 years. Majority of teachers have post graduate degree in engineering with 8 of them having Ph. D. (9%). It shows that the number of male teachers is much higher in engineering institutions (80%) compared to female teachers.

TABLE NO 3: DETAILS OF INTRINSIC MOTIVATORS IN TEACHERS

Variable	Motivator	Intrinsic									
		Autonomy		Role clarity		Opportunity for growth		Communication		Job satisfaction	
		Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Overall		4.0	0.71	4.1	0.65	3.7	0.87	3.8	0.83	4.0	0.69
Age	Age upto 30 years	4.2	0.7	3.8	0.47	3.7	0.74	3.6	0.91	3.9	0.71
	Age bet 30 - 40 years	4.0	0.75	4.3	0.68	3.8	0.95	3.8	0.79	4.0	0.75
	Age above 40 years	4.0	0.69	4.2	0.66	3.7	0.84	3.9	0.76	4.1	0.62
Experience	Experience upto 5 yrs	4.2	0.75	3.7	0.50	3.5	0.92	3.5	1.11	3.7	0.77
	Experience bet 5 - 10 yrs	4.1	0.71	4.3	0.67	4.1	0.71	3.9	0.54	4.1	0.68
	Experience above 10 yrs	4.0	0.71	4.2	0.65	3.7	0.88	3.8	0.80	4.1	0.65
Education	Graduate	4.3	0.69	4.1	0.71	3.9	0.89	3.7	1.02	3.8	0.63
	Post Graduate	4.0	0.71	4.2	0.66	3.7	0.87	3.8	0.76	4.0	0.74
	Miscellaneous	4.0	0.73	4.0	0.58	3.6	0.87	3.8	0.81	4.2	0.62
Gender	Male	4.0	0.72	4.2	0.68	3.7	0.93	3.8	0.88	4.0	0.71
	female	4.1	0.70	4.0	0.53	3.9	0.57	3.8	0.63	4.0	0.60

Autonomy is higher for teachers of under 30 years age group. Teachers with less than five years experience find higher autonomy in their working whereas they find communication least effective for them. Job satisfaction is higher for teachers in the above 40 years age group. It is understandable as one grows in service one gets more academic freedom and hence satisfaction. Female teachers find opportunity for growth is higher for them. Male teachers find role clarity higher for them. Role clarity is much higher in middle age group.

TABLE NO. 4: DETAILS OF EXTRINSIC MOTIVATORS

TABLE NO. 4: DETAILS OF EXTRINSIC MOTIVATORS							
		Monetary		Job security		Performance	
		Mean	SD	Mean	SD	Mean	SD
Overall		3.5	0.77	3.8	0.83	7.4	1.03
Age	Age upto 30 years	3.5	0.63	3.5	0.62	7.2	1.06
	Age bet 30 - 40 years	3.6	0.75	3.9	0.9	7.2	0.72
	Age above 40 years	3.5	0.83	4.0	0.81	7.7	1.13
Experience	Experience upto 5 yrs	3.4	0.72	3.5	0.76	7.1	1.16
	Experience bet 5 - 10 yrs	3.9	0.61	4.1	0.71	7.4	0.58
	Experience above 10 yrs	3.5	0.80	3.9	0.85	7.5	1.06
Education	Graduate	3.6	0.72	3.6	0.93	7.0	0.76
	Post Graduate	3.5	0.71	3.9	0.77	7.2	0.86
	Miscellaneous	3.5	0.93	3.9	0.86	8.2	1.09
Gender	Male	3.5	0.83	3.8	0.88	7.5	1.0
	female	3.5	0.49	3.9	0.63	7.2	1.14

Teachers in middle age group are found to be more satisfied with monetary rewards given to them. Monetary benefits are similar across all age groups. People in highest age group feel more secure in their jobs. This is natural as one goes up in ladder one feels more wanted and therefore more sure of job. Experience wise teachers feel more satisfied with rewards as the age increases. It is probably due to fact that salaries at higher levels are more. Teachers in the 5-10 years experience group is most satisfied as far as monetary benefits or job security are concerned. There is negligible difference in monetary benefits or job security as far as gender is concerned. Performance is higher for teachers with miscellaneous qualifications. It is as expected as this group includes PhDs also. Performance of male teachers is higher than female teachers. Performance improves with age. It is on expected lines as teachers gain confidence with age and publish more papers/ attend more conferences.

TABLE NO. 5: CRONBACH ALPHA VALUES OF SUB SCALES AND QUESTIONNAIRE

SI No	Sub Scale	Value
1	Autonomy	0.82
2	Role clarity	0.77
3	Opportunity for growth	0.94
4	Job satisfaction	0.74
5	Communication	0.87
6	Extrinsic motivators	0.69
7	Job security	0.75
8	Overall Questionnaire	0.96

The cronbach alpha values for the whole questionnaire and the sub scales used are listed in Table No 5 above. The value of overall questionnaire is 0.96 indicating its high reliability and internal consistency. Values for all sub scales are also adequate for reliable statistical analysis.

CORRELATION AMONG THE INDEPENDENT AND DEPENDENT VARIABLES

The correlations among the eight independent variables and dependent variable have been worked out and are given in Table No 6. It shows that autonomy, communication, satisfaction and security have significant correlation with performance at high significance level. The correlations between role clarity, opportunity for growth and external motivation lose its significance because of high t value.

TABLE NO 6: PEARSON CORRELATION AMONG DEPENDENT AND INDEPENDENT VARIABLES

	Autonomy	role-clarity	Opportunity for growth	communication	satisfaction	ext mot	security	performance
Autonomy	1							
role-clarity	0.494*	1						
Opportunity for growth	0.690*	0.688*	1					
communication	0.715*	0.754*	0.839*	1				
satisfaction	0.599*	0.658*	0.792*	0.716*	1			
ext mot	0.711*	0.614*	0.828*	0.776*	0.645*	1		
security	0.515*	0.588*	0.604*	0.711*	0.644*	0.512*	1	
performance	0.257*	0.096	0.081	0.134**	0.164**	0.111	0.256*	1

* p < 0.01

** p < 0.05

DIFFERENCES WITHIN SUB GROUPS IN MOTIVATORS

Kruskal Wallis test were carried out to find statistically significant differences in the medians of various motivators across the sub groups based on age, experience, educational qualifications and gender. The results are given in the Table No 7 below. Autonomy is different in the different experience groups. Autonomy also differs significantly in groups based on education, it being highest in miscellaneous group. Role clarity varies significantly with age and experience. Opportunity for growth is different for different experience groups. Job satisfaction is significantly different for groups based on education, age and experience. Gender has no significant effect on autonomy, communication, satisfaction and job security.

TABLE NO 7: RESULT OF KRUSKAL WALLIS TEST FOR DIFFERENT SUB GROUPS FOR INTRINSIC/ EXTRINSIC MOTIVATORS

Predictor	Age group			Experience			Education			Gender	
	upto 30 years	bet 30 -40 years	above 40 years	upto 5 years	bet 5-10 years	above 10 years	graduates	postgraduates	miscellaneous	Male	female
Autonomy	-	-	-	**	**	**	**	**	**	-	-
Role clarity	*	*	*	*	*	*	-	-	-	**	**
Opp-growth	-	-	-	*	*	*	-	-	-	**	**
Commn	**	**	**	**	**	**	-	-	-	-	-
Satisfaction	**	**	**	**	**	**	*	*	*	-	-
Ext Mot	**	**	**	**	**	**	-	-	-	-	-
Security	*	*	*	*	*	*	**	**	**	-	-
Performance	-	-	-	-	-	-	-	-	-	-	-

* at 5% level

** at 10% level

ANALYSIS OF COMMENTS RECEIVED THROUGH OPEN ENDED QUESTIONS

A total of 33 comments have been received in response to open ended questions. These have been subdivided into following categories for better interpretation and analysis:

BETTER INFRASTRUCTURE AND WORKING CONDITIONS: 10 comments (30%) have been received addressing these issues. There is a definite need to improve working conditions including working environment, facilities and laboratories.

COMMUNICATION: Four teachers have raised the issue of improvement in communication. As per them communication needs improvement. It could be improved by opening various channels of horizontal and vertical communication.

GOVERNANCE: Governance has emerged as most dominant area which needs to be improved. Maximum number of comments received (12) pertain to this. This shows teachers are not happy with the way the administration is managed in institutions. A lot needs to be done to bring in transparency.

RESEARCH ORIENTATION: Two remarks address need for research orientation to improve. The number is less probably because institutes from where teachers have responded mainly handle undergraduate programmes.

INCENTIVES: Monetary incentives/ extrinsic rewards still count as may be seen from three comments received regarding these matters.

It is thus obvious that the comments strengthen the variables identified through closed ended questionnaire notably autonomy, communication, growth opportunities and better facilities including higher monetary rewards.

CONCLUSIONS

It has been observed that the intrinsic motivators like autonomy, communication and satisfaction have significant correlation with performance of the teachers. Autonomy for a teacher means planning lessons, formatting syllabus and selecting text books to recommend to their students on their own. It may also be seen that the motivators are different for teachers of different age groups. These are different even for groups based on experience, education and gender. Gender has no significant effect on motivators. Institutional heads/ promoters need to pay attention to these intrinsic motivators. There is also a general feeling that governance needs to improve considerably for teachers to be more effective. Communication also needs to improve. Institutions need to set up transparent systems in place for human resource management of teachers. Empowerment of teachers will go a long way in energizing them. These do not need much monetary resources for enhancement of these parameters. What is required is a strong will and clarity of purpose/ goal on the part of management of the institutions.

DIRECTION FOR FUTURE WORK

This is one of many attempts to assess if the fulfilment of intrinsic motivators enhances satisfaction and performance of teachers significantly. We have found some correlation among these. More studies are needed to establish causal relationship between selected independent and dependant variables. A longitudinal study with larger sample size may reveal more accurate causal relationship.

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APPENDIX**APPENDIX 1: QUESTIONNAIRE****PART A**

Name
 Gender
 Organisation
 Present position
 Present salary as per 6th pay commission, as per 5th pay commission, in between these two
 Working since in current institute (years)
 Total experience (years)
 Age(years)
 Educational qualifications
 No of publications in refereed journals in last three years
 No of international conferences attended in last three years
 No of national conferences attended in last three years
 Feedback from students
 Peer review and/ or Annual performance rating

PART B

Likert scale 1 – 5

1 strongly disagree, 2 disagree, 3 neutral, 4 agree, 5 strongly agree

Sl No	Question	Response (Scale 1-5)
1	I feel like doing work here	
2	I find superiors supportive of my actions	
3	They show concern for our feelings	
4	I feel organisation pays adequately for the job	
5	I find performance based incentives are sizable part of compensation	
6	I think rewards are fair	
7	I think organisation recognises good work	
8	I am satisfied with working environment in the organisation	
9	I am comfortable with peers, subordinates and superiors	
10	I am happy with policies of the organisation	
11	Our pay is comparable with other organisations	
12	The organisation provides equal opportunities for self development	
13	We are provided adequate training for self development	
14	Personnel policies of the organisation facilitate employee development	
15	My appraisal helps me to continuously improve performance	
16	I am not unnecessarily worried if I make a mistake	
17	Job security is high in the organisation	
18	Management does not discriminate on the basis of age, religion, gender, disability or native language	
19	We have free and unhindered communication channels in the organisation	
20	The organisation has open culture where we can question decisions based on logic	
21	My organisation has an effective employee feedback system	
22	Management uses the employee feedback to improve continuously	
23	We are clear about our role in the organisation	
24	I am aware of mission, goals and objectives of my organisation	
25	I understand how quality is defined & measured in my work	
26	I am kept informed of my department results vs targets	
27	There are adequate opportunities for self development	
28	The management style in my company brings out the best in employees	
29	My management's emphasis is on quality resulting in continuous improvement in services	
30	What one item organisation can/ should do to improve motivation	Open ended
31	Your suggestions for improvement of your organisational culture	Open ended

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