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53 The Key Characteristics of Necessity: Comparison between students and Employees Data

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From The Editor's Desk

It is our great pleasure to present to our readers the 27th issue of DIAS Technology Review.

Like a prism making dispersion of white light into different hues of colours, the present issue deliberates upon various perspectives of Human Resource Management, a significant area of management.

Having the 'right people in right places' is indispensable for the organizations today, as labour plays pivotal role in any organization's performance. Of course, it is the most agile factor of production and finding out the 'best fit' is a rigorous job; but creating passion in employees and retaining them is equally epoch-making. Modern institutions can derive healthier financial results, if the vast reservoir of employee-potential could be tapped up and directed to proper channels. This is possible by keeping people engaged and connected with the 'big picture' of the organization's vision, mission, and values. Studies reveal that only one in seven employees worldwide, is fully engaged with their jobs and is ready to go an extra mile. A new verbiage, job engagement is resonating in corporate as well as academics corridors now a days. This connotes an alignment of employees' actions with the organizational goals. The research study **Towards Identifying Dimensions of Faculty Job Engagement for Public, Private and Deemed Universities in Delhi-NCR**, focuses on staff retention and talent management issues – a critical zone of employee engagement. The authors have attempted to establish the dimensionality of job engagement of faculty teaching in professional and technical courses in different universities in Delhi-NCR.

It is said, a teacher is builder of nation and the higher educational establishments are the temples of knowledge. The success of academics lies in creating passion-driven workforce. This again is highly contingent to the capabilities of faculty and their intent to proliferate quality education. It is imperative for the Institutions to recruit motivated faculty, keen to work and shape the future of their students. In an exploratory study **Faculty Motivation: A Concern for Technical Institution** authors have delved deeper to identify certain vital factors leading to faculty 'motivation' to join technical institutions. The research signposts the dexterity and job satisfaction of faculty, being instrumental in quality education and knowledge dissemination. Another research article **Impact of Behavioural Factors on Job Satisfaction among University Teachers in India – An Empirical Analysis** again highlights the factors affecting job satisfaction among university teachers. The author has tried to validate four behavioral factors namely, attitude and behavior of authorities, coordination and cooperation among the co-faculty members, attitude and behavior of administrative staff and attitude and behavior of students through Exploratory Factor Analysis (EFA) which influence university teachers' job satisfaction and indulgence.

Human Resource Management works as a catalyst between the policies and practices of the organizations and its people. To gain adroitness in today's competitive environment, the organizations are switching to electronic HRM for effective management of its employees. The extent to which various universities and their affiliated colleges are using web based processes and information systems for their smooth functioning, has been explored by the author in her study **An Exploratory Study of E-HRM Practices in Educational Institutions**. Another article **Dynamism of FII flows and Expected Volatility in Indian Stock Markets: An Empirical Analysis** reconnoiters the inter-relationships of Foreign Institutional Investor (FII) flows and option implied Volatility Index (VIX) by making a study over seven years' duration. The authors, through Granger Causality Test have confirmed strong evidence for uni-directional flow of causality from option implied volatility to FII investments into Indian markets.

To attain top performance the organizations, need to motivate employees rise above their personal agendas and turf wars. It is essential to identify the principal characteristics of three types of workers- "Necessities," "Commoners," and "Parasites", who may make or maim the vision and values of an organization. In the concept paper **The Key Characteristics of Necessity: Comparison between Students and Employees Data** authors have compared key trait differences of these employees and the need for their conversion into an enthusiastic team.

In the end the doctoral abstract **Manpower Planning Optimization: A Study on Haryana Roadways** designates the significance of appropriate placement of labour in the 'corporate jigsaw' to make its effective and efficient utilization. The author has recognized certain factors like periodic and realistic manpower needs, staff costs, optimum productivity and overall growth for the optimization of the manpower in the transportation industry.

In our pursuit of knowledge proliferation, we are hopeful that as usual, this new edition of DIAS Technology Review will also prove to be more informative and enthralling to our valued reviewers.



Regards,

Dr. Anju Batra

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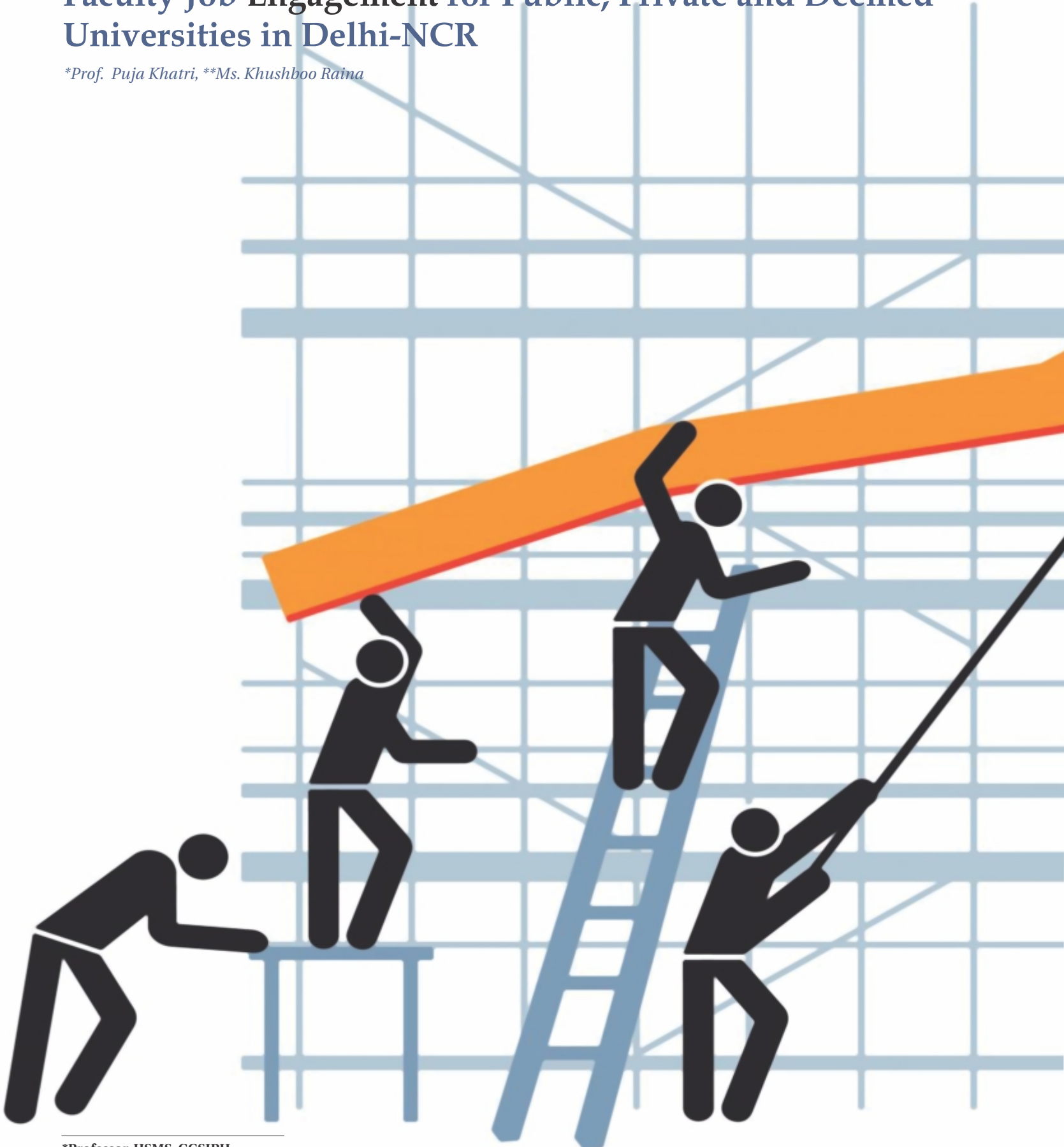
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Dr. Richa Arora

Towards Identifying Dimensions of Faculty Job Engagement for Public, Private and Deemed Universities in Delhi-NCR

**Prof. Puja Khatri, **Ms. Khushboo Raina*



**Professor, USMS, GGSIPU*

***Research Scholar, USMS, GGSIPU*

ABSTRACT

The concept of engagement has been studied since decades and it is a well established fact that an engaged workforce is much loyal, productive, result oriented and has less intentions to leave the organizations. Though the concept of job engagement has its roots in academics but very few studies have been conducted on faculty especially in Indian context. This study attempts to establish the dimensionality of job engagement of faculty teaching in professional and technical institutions in India using a self constructed questionnaire. This study also presents a vast body of literature regarding engagement and its measurement scales. The study has been conducted on faculty teaching professional and technical courses in universities in Delhi-NCR. The technique of multi stage sampling has been adopted where in at the first stage the sampling was purposive in which Government, Private and Deemed universities (not managed by cooperatives) running Management and Engineering courses were selected. The study was conducted on 209 faculty members from both the courses in three types of universities, using a self constructed engagement scale and the Cronbach Alpha of the same came out to be 0.91.

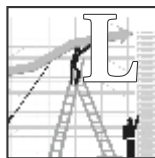
Keywords: Faculty Job Engagement, Teacher's Job Engagement, Dimensionality of Job Engagement, Indian Faculty Job Engagement.



INTRODUCTION

There has been a widespread interest in the study and measurement of engagement over the last decade (Saks and Gruman, 2011). The empirical researches focused on different aspects of engagement, its antecedents and consequences but the finding seems to be similar i.e. an engaged employee is a significant repository of organizational competitiveness (Salanova and Schaufeli, 2008). The concept of employee engagement has become a topmost leadership priority as a constant search of different methods, to engage the workforce is going on. The engaged employee is much productive and result oriented, believes in staying with one organization and is identified as the ambassador of the organization (Chandani, Mehta, Mall and Khokhar, 2016). The macro level indicator developed by Gallup organization to determine the proportion of actively engaged to disengaged employees revealed that engaged employees result in better productivity, profitability, reduced absenteeism and low intentions to leave the organization whereas the disengaged employees shake the bottom line of the organization as well as the working spree of the fellow members. A 12 item scale has been developed by the organization to measure the engagement levels (Gallup, 2008). The best organizations are characterized by a strong culture, reputation, strong leadership, performance oriented approach and employee engagement. In order to measure the engagement level of employees the engagement model of Aon Hewitt contains three important elements say (speak positively about the organization, stay (having a sense of belongingness towards the organization) and strive (putting in effort in the job and organization) (Aon Hewitt, 2014). These three dimensions coincide with the dimensions proposed by Pritchard (2008). Most of the studies on engagement have been conducted in corporate organizations recently though the concept has its roots in academics. There is an urgent need to inculcate the engagement behavior and culture in Indian universities. Early retirement, high turnover rate and less availability of skilled faculty are the issues prevailing in Indian academic sector. The researches in engagement in academia have gained momentum again and the scholars seem to be interested in finding similar consequences for the members of academia too. There are studies which talk of the student engagement and National Survey of Students' Engagement is a full-fledged attempt to ascertain the results. However, studies on faculty engagement are very less. The terms so used for engagement are similar in academia too but the definitions and items are very different (Wefald and Downey, 2009). The measurement scale for faculty engagement in Indian universities (not managed by co-operatives) is apparently absent, though there is a need to have such a system in place because academic environment and setting is entirely different from the corporate ones. The attempts have been made to develop a faculty engagement scale in the universities abroad but Indian academic sector works on different protocols and mindset. This research initiative tries to probe into the different dimensions and definitions of job engagement from literature and thereafter, establishing dimensionality of the scale in Indian context. The study will be beneficial for the policy regulators, administrators,

academicians and researchers holding interest in similar avenues.



LITERATURE REVIEW

There is a common consensus among authors that employees who are engaged are capable of bringing revolutionary changes in the organizations (Macey and Schneider, 2008). Such employees stay loyal or committed to their organizations, perform better and are much productive. Kahn (1990) distinguished engagement on the basis of one's involvement in the job role i.e. personal engagement and personal disengagement and defined engagement as engrossing oneself to the respective job role marking engagement wherein an employee represents oneself cognitively, emotionally and physically while performing on job. The engagement here has been defined in terms of cognitive engagement (one's awareness about one's role in the organization), emotional engagement (degree of connectedness with peers and seniors) and physical engagement (extra role performance at job). Job engagement is gaining popularity amongst scholars as a crucial psychological construct and an important set of dimensions of the same have been given by Schaufeli, Salanova, Gonzalez-Roma and Bakker (2002) who developed Utrecht Work Engagement Scale and define it as a positive, fulfilling work related state of mind characterized by vigor (willingness or energy to be invested in work), dedication (strong involvement in one's work with a sense of accomplishment, pride and enthusiasm) and absorption (being fully engrossed in one's work that it becomes tough to leave). These dimensions represent a close psychological association of an employee with one's job or work. On similar lines, Macey and Schneider (2008) suggested three dimensions of engagement a) Trait engagement which has similar elements as that of cognitive engagement, b) State engagement similar to affective or emotional engagement and c) Behavioural engagement which includes organization citizenship behavior. Saks (2006) classified engagement at two levels a) job engagement and b) organization engagement and empirically tested that different set of antecedents lead to them. The author further suggested that the meaning of engagement is quite different in case of academic literature and can be measured by cognitive, emotional and behavioural elements. The researchers for this particular study took Saks model as base and studied job engagement in context of faculty teaching professional and technical courses. It can be noted that Saks (2006) attempted to study the antecedents and consequences of engagement in different types of organizations, by taking into consideration the environment, in which employees work. It was concluded that job engagement was predicted by job characteristics and organizational engagement was predicted by procedural justice provided by the organizations. It endorses the opinion of Hackman and Oldham (1980) that certain job characteristics have an impact on the vital psychological state which further influences employees' internal work motivation. The job engagement of the employee is said to be affected by personal value congruence and efforts towards

one's work. On the other hand, Organizational engagement as a concept is the desire of an employee to be a member of the organization and is the willingness to conform to the organizational values and exerting efforts towards attaining organizational objectives (Becker, Randal and Riegel, 1995). Thus, it can be said that job engagement focuses on the psychological aspect of employees more than the type and environment of the organization.

Another measurement scale has been discussed by Fredricks and Eccles (2002), they opined that engagement can be measured on the basis of employees' cognitive, behavioral and emotional elements. While doing extensive literature review on engagement, Raina and Khatri (2015) compiled the dimensions mostly discussed by authors, in order to measure the construct and found that engagement has mostly been discussed in terms of cognitive, emotional, behavioural and physical components. Cognitive engagement can be defined as an individual's clarity about one's role with respect to the objectives and goals of the respective organization and with an understanding as to how that contribution matters to the organization and others (Boswell, 2006; Lacy, 2009). Connell and Wellborn (1994) defines behavioural engagement as an attitude towards work when it is assigned to the employee. Emotional engagement can be defined as the increased level of emotions when one reaches the completion of the task. Also, this dimension refers to the degree to which an employee is emotionally connected to one's peers and seniors (Lacy, 2009). The physical engagement component has been studied less and majorly defined with respect to the definition given by Kahn (1990) earlier.

Most of these studies have explored these dimensions in context of corporate organizations and if in academics, then on students as the sample. The dimensionality for faculty engagement has been less attempted in non Indian context and almost negligible in Indian context. One Indian study on faculty engagement has been conducted by Barman and Ray (2011) wherein they developed the questionnaire on the basis of 10 Cs given by Seijts and Crim (2006) i.e. Career, Confidence, Clarity, Convey, Congratulate, Credibility, Confidence, Collaborate, Control and Contribute. They came up with a model to suggest which factors affect faculty engagement in India but no concrete dimensions. Another study conducted by Pawar (2014) attempted to study antecedents to teachers' engagement in Indian context but no dimensionality has been established for the construct and used Gallup's 12 item questionnaire as their measurement tool. Livingston (2011) defined faculty engagement as continuous attention, energy and enjoyment regarding the roles related to faculty wherein they are able to find a purpose and feel coherence with their personal value system and face challenges to deploy that intelligence, skills, productivity and experience during tough phases. The study was conducted on 522 faculty members from ten public or private colleges/universities offering 4 year programmes, wherein a minimum of 40 faculty members from each university was taken. A 6 factor model for faculty engagement was tested wherein the factors identified were: service engagement, teaching absorption, fit, research

engagement, purpose in research and teaching engagement; she further suggested that researchers must attempt to analyze data from faculty working in more diverse institutions in order to verify the respective instrument's reliability and validity.

A highly engaged faculty member would give necessary attention to tasks, find enjoyment and energy in it, identify whether work is meaningful and share similar values, takes up challenging tasks for enhanced knowledge and skills and stay effective irrespective of challenging job demands. The benefits and methods of measurement of engagement are said to give similar results in case faculty also. This research initiative attempts to study the same as engaged faculty will also be much productive, effective and loyal to the institution. The engaged campus so created will have much to offer to the society in terms of productive and well equipped faculty ready to stay loyal to their institutions and preparing their students for the dynamic needs of the corporate organizations making them more employable. But the studies conducted in a different culture may not result in similar consequences. The culture in American universities is quite informal Collins (2008) and World War II has made researchers fled to US (Weber, 2002). In India, dual form of the government makes education much liberal and students from all backgrounds study together. Though faculty composition includes local talent more. The composition of Indian faculty is majorly comprised of permanent and contractual faculty and contractual faculty is majorly prone to exploitation, job insecurity, stress and financial disadvantage (Singh, 2011). Selmer, Jonasson and Lauring (2014) attempted to study knowledge processing and faculty engagement in multicultural universities in Denmark and found that knowledge location and sharing bears a strong and positive relationship with cognitive, behavioural and emotional engagement. The researchers could find this study which defined faculty job engagement on the said dimensions. The present study has taken into consideration the dimensions most talked about (cognitive, emotional and behavioural engagement) and least talked about (physical engagement) to develop a self constructed questionnaire to measure the faculty job engagement in Indian universities not managed by co-operatives. Co-operative managed institutions are the autonomous institutions wherein people from a particular community or association, voluntarily come together for fulfilling some specific economic, cultural and social needs through a controlled business unit. In India, universities are not managed by cooperatives though some proposals are at hand, this study focuses on empirically establishing the dimensionality of faculty job engagement in such universities.

Objective

- To develop and test a concise measure of Faculty job engagement.



RESEARCH METHODOLOGY

This research initiative studies the perceptions of faculty teaching professional and technical courses in Delhi-NCR, regarding their attitude towards job engagement.

Part A of the questionnaire focuses on the demographic details of the respondents including gender, age, type of university, length of service in the said university etc. whereas part B maps their perceptions regarding different items of job engagement. A self-constructed questionnaire containing 35 items was administered to respondents. The questionnaire uses five point likert agreement scale to measure the responses on the decided variables where 1 meant strongly disagree and 5 meant strongly agree. The questionnaire was subjected to review by experts from academia and industry, and their inputs have been incorporated accordingly. Reliability of the same was computed to be Cronbach Alpha 0.91. According to Nunnally (1978) the instruments used in basic research have reliability of about .70 or better.

Stratified random sampling has been used wherein a list of universities (not managed by cooperatives) running Management and Engineering courses in Delhi-NCR was drawn from University Grants Commission's website. Then, using fish bowl technique two Government, two Private and two Deemed University were selected from the list using fish-bowl sampling. 40 faculty members (20 each from the Management and Engineering departments) each from Govt., Private and Deemed University were personally contacted for survey and hard copies were administered personally by the researchers for mapping their responses. Out of 240 filled, 209 valid questionnaires were selected for the study signifying a response rate of 87%.

Data Analysis

In order to develop a concise list of explanatory factors of job engagement from the responses collected, exploratory factor analysis (EFA) was conducted. Factor Analysis is a technique for achieving parsimony by categorizing the smallest number of descriptive terms to explain the maximum amount of common variance in a correlation matrix (Tinsley & Tinsley, 1987). The descriptive terms generated by the factor analysis summarized the longer list of items and replaced it with a shorter, more practicably useful list of derived items. Prior to applying factor analysis, Kaiser's criterion and Bartlett's test were applied (Table 1). The KMO statistics depicts the ratio of the squared correlation between the given variables to the squared partial correlation between variables. Kaiser (1974) suggested scores >0.5 as acceptable for applying factor analysis. In the current study, KMO score was found to be 0.904 and Bartlett's measure was found highly significant ($p < 0.001$), so it was found appropriate to apply factor analysis for the data.

The Total Variance Explained (Table 2) explains the associated eigenvalues with each factor before and after extraction and post rotation (Field, 2000). As it can be observed that before extraction there are 19 components which are all variables

Table-1: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.904
Bartlett's Test of Sphericity	Approx. Chi-Square	1996.829
	df	171
	Sig.	.000

listed. In order to eliminate error variance that would be included along with the common variance and specific variance at this stage, only the factors with an eigen value of 1.0 or greater were retained which are shown in Extraction Sum of Square Loadings. The last segment of the table displays the eigen values of the factors after rotation. From the initial eigen values from the data, Factor 1 explains 40.884% of total variance. It is considered to be a normal phenomenon if factor 1 contributes for the large amounts of variance than the other factors. Rotation of the factor axis has an effect towards the optimization of the factor structure. Before rotation, factor 1 accounted for 40.884% of all variance and after rotation, factor 1 accounts for 24.426% of variance and other factors as 17.880% and 15.512%. The three factors collectively accounted for 57.817% of the total variance.

Findings

The last output is of the Rotated Component Matrix which depicts the factor loading for each variable on to each factor. The researchers have included only those items which have factor loading more than 0.4 as it is deemed appropriate for the interpretative purposes Steven (1992). Table 3 represents the result of Exploratory Factor Analysis. It can be clearly observed from the table that a three factor solution has been emerged.

Factor 1. Affective Involvement: The items loaded on this factor depict characteristics which reveal the emotional connect towards the organization, thinking of workplace as soon as one gets up in morning, treating colleagues as family, staying optimistic about the job and upright to every event taking place in the department. This factor mostly revolves around the emotional aspect of the employee towards the job, department and its other members. The descriptors loaded on this factor are 'staying equally dedicated to duties even if things are not well', 'treating colleagues as family members', 'feeling an emotional connect with the department' etc. The reliability of this factor comes out to be 0.883 and shown in Table 4.

Factor 2. Intensity of Effort: The items loaded on this factor depict traits which allow an individual to stay dedicated towards all duties, responsibilities and working with complete intensity. It represents the discretionary effort that an individual takes to accomplish tasks and thus, ensuring engagement. It includes items which show the intensity, effort, attention and hardwork. The factor includes items like 'exerting full effort to job', 'striving hard to complete the job', 'working with complete intensity and effort on job' and 'paying lot of attention to the job'. The reliability of the said items comes out to be 0.87 and is depicted in Table 5.

Table: 2 Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Loadings		
							Total	% of Variance	Cumulative %
1	7.768	40.884	40.884	7.768	40.884	40.884	4.641	24.426	24.426
2	1.790	9.422	50.306	1.790	9.422	50.306	3.397	17.880	42.306
3	1.427	7.511	57.817	1.427	7.511	57.817	2.947	15.512	57.817
4	.951	5.006	62.823						
5	.844	4.441	67.264						
6	.802	4.219	71.482						
7	.752	3.957	75.439						
8	.651	3.429	78.868						
9	.527	2.775	81.643						
10	.525	2.761	84.403						
11	.507	2.671	87.074						
12	.450	2.366	89.440						
13	.400	2.104	91.544						
14	.342	1.800	93.344						
15	.324	1.705	95.049						
16	.292	1.536	96.585						
17	.275	1.448	98.033						
18	.212	1.116	99.149						
19	.162	.851	100.000						

Extraction Method: Principal Component Analysis.

Table: 3 Rotated Component Matrix

	Component		
	1	2	3
When I get up in morning, I really look forward to come to my workplace.	.778		
I feel an emotional connect with my organization.	.768		
I feel energetic at my job.	.740		
I understand that my job contributes to the overall objectives of my organization.	.689		
I feel positive about my job.	.647		
I am proud of my job.	.632		
I try to ensure my involvement in all major events of my department.	.590		
My colleagues are like family to me.	.571		
I will be equally dedicated to my duties even if things don't go well.	.551		
I exert my full effort to my job .		.852	
I strive as hard as I can to complete my job.		.844	
I try my hardest to perform well on my job .		.803	

	Component		
	1	2	3
I work with complete intensity on my job.		.679	
I pay a lot of attention to my job.		.427	
Updation of knowledge is significant for me to enhance my technical acumen.			.745
When I do research, time flies.			.726
I feel it is very important to regularly hone my skills.			.717
Teaching is my passion.			.590
I feel it is important to connect with real world by taking assignments outside the classroom.			.560

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

Table: 4 Items loaded on Factor 1 (Cronbach alpha= 0.883)

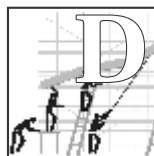
Items	Factor Loadings
When I get up in morning, I really look forward to come to my workplace.	0.778
I feel an emotional connect with my organization.	0.768
I feel energetic at my job.	0.74
I understand that my job contributes to the overall objectives of my organization.	0.689
I feel positive about my job.	0.647
I am proud of my job.	0.632
I try to ensure my involvement in all major events of my department.	0.59
My colleagues are like family to me.	0.571
I will be equally dedicated to my duties even if things don't go well.	0.551

Table: 5 Items loaded on Factor 2 (Cronbach alpha= 0.87)

Items	Factor Loadings
I exert my full effort to my job.	0.852
I strive as hard as I can to complete my job.	0.844
I try my hardest to perform well on my job.	0.803
I work with complete intensity on my job.	0.679
I pay a lot of attention to my job.	0.427

Factor 3. Technical Enhancement: This factor is comprised of the items which indicate the importance of updating knowledge and skills, staying absorbed in the research tasks and connected with the real world assignments. It indicates that the need of updating skills has become indispensable in all arenas of job, in teaching too. The items indicating these features are 'importance of regularly sharpen the skills', 'significance of updating knowledge to enhance technical acumen', 'time flies while doing research', 'treating teaching as passion' etc. The reliability of this factor comes out to be

0.75 (Table 6).



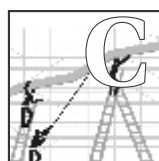
DISCUSSION

The self constructed faculty job engagement scale in Indian context majorly coincided with the factors so evolved in the final analysis. This 35 item scale was found to reflect adequate psychometric properties. An underlying three-factor dimensionality was established with acceptable fit statistics.

Table-6: Items loaded on Factor 3 (Cronbach alpha= 0.75)

ITEMS	FACTOR LOADINGS
Updation of knowledge is significant for me to enhance my technical acumen.	0.745
When I do research, time flies.	0.725
I feel it is very important to regularly hone my skills.	0.717
Teaching is my passion.	0.59
I feel it is important to connect with real world by taking assignments outside the classroom	0.56

The correlations among the dimensions were modest in magnitude indicating related but meaningfully distinct factors. The first factor affective involvement majorly corresponds to the perceptions of respondents which revolve around the emotional aspect of engagement. Statements like feeling an emotional connect with the organization, considering colleagues as family members and staying dedicated to duties even if things are not going well clarifies the emotional component of engagement which includes belongingness (Burrows, 2010), relationship with peers (Appleton, Christenson, Kim and Reschly, 2006) and positive conduct (Fredericks, Blumenfield and Paris, 2004). The next factor intensity of effort focused on the perceptions of the respondents wherein they are dedicated to their job assignments, working with complete intensity, effort, hard work and paying complete attention to their jobs. Work intensity is a significant element of the physical engagement component (Rich, Lepine and Crawford, 2010) and also the extra role performance (Kahn, 1990); and discretionary effort (Lacy, 2009) coincide with the behavioral engagement component. The next factor technical enhancement includes variables which depicts the perceptions of respondents towards upgrading knowledge to enhance technical acumen, regularly sharpen the skills, being involved in research assignments which is one of the major expected role of faculty, being active out of classrooms too by taking real world assignments and considering teaching to be their passion. These features correspond to the current needs of the faculty members wherein they have understood the need to stay abreast with the technical knowledge and skills to come at par with the faculty abroad. The representation of Indian faculty in conferences abroad is inculcating this feeling in faculty and therefore, such opportunities must be provided by the universities. Therefore, the factors so obtained contribute towards a better understanding of the career orientation of Indian faculty teaching professional and technical courses.



CONCLUSION AND IMPLICATIONS

The study attempted to establish dimensionality of job engagement of faculty teaching in professional and technical institutions and results presented a comprehensive set of factors which corresponded to engagement variables discussed by many authors. The factors included all the facets of engagement and relevant to the Indian faculty which would result in a productive and loyal

workforce. The role of faculty has completely transformed and does not stick to the traditional patterns of teaching. They are expected to play multiple roles of a teacher, researcher, mentor and non academic roles too. Most of the faculty leave their organizations because of no autonomy, less challenging tasks, remuneration and poor hierarchical structure of universities. The young workforce mostly looks for corporate jobs and not teaching because of less promotional opportunities and personal growth. Universities abroad have implemented many practices to create an engaged campus and workforce. University of Chicago has given 'academic freedom' to the faculty members so that they can enjoy autonomy in teaching methods and stay psychologically satisfied. British Columbia Institute of Technology has implemented collegial model (where decisions and power is shared amongst all members of the campus), shared governance model (where decisions are made on expertise basis) and managerial model (when decisions are taken by minority of the senior executives, majorly for strategic decisions). University of Mississippi has implemented self nomination process for promotions and University of Oklahoma promotes face time technique for breaking the barriers. No such practice was studied in Indian context. The factors so obtained present a set of features which represent an engaged faculty and thus can be helpful in creating an engaged campus. Three factors so obtained, viz. Affective involvement, Intensity of effort and Technical enhancement aim at transforming an individual faculty into an engaged one on their respective job roles. This will address the issues of high attrition rate and less availability of faculty in the academia. Faculty would be aware of the type of campus they want to be a part of. The factors majorly correspond with the dimensions so taken for constructing the faculty job engagement scale along with many other elements of engagement at work as discussed. Most of the researches have taken 2 or 3 dimensions to define engagement. This study identified all the important components and showcased the potential of engagement as a multi-dimensional construct. The essence of including these components will solve the challenge of exploring and defining each one of them and in relation to each other in order to study the faculty connectedness with their job.

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Faculty Motivation: A Concern for Technical Institution

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ABSTRACT

The growth of any nation is dependent on the quality of its higher education all over the world. The growing expansions in the field of science, technology and other knowledge intensive structures are challenging the higher educational establishments all over the world. The success of academics is highly dependent on the capabilities of faculty and their intent to spread quality education. It is important for the Institutions that motivated faculty work and shape the future of their students as well as their own. The current study focuses to identify the employee motivators for joining a technical institution. Exploratory factor analysis was applied to develop the measurement tool for identifying factors motivating faculty to join technical institutions. Confirmatory Factor Analysis and Structural Equation Modeling were applied to identify the critical factors leading to Motivation to join technical institutions. This research can be an effective input to many technical institutions to reconsider their approach towards their faculty and work on the factors motivating them for assuring maximum quality in imparting education.

Keywords: Faculty, motivation, quality, technical Institutions.

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INTRODUCTION

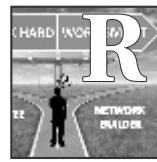
“Education should become a force for the nation's character building”

--Shri Narendra Modi, Hon'ble Prime Minister of India

According to Ministry of Human Resource Development, Department of Higher Education, the Indian Higher Education system, which includes Technical Education, is one amongst the largest in the world, just after the United States and China. This sector in India has the highest number of Institutions and second highest in terms of number of students. According to statistics presented in the year 2014-15, the sector is educating nearly 296.29 lakh students in nearly 665 universities and 47,272 colleges and institutions. This shows that technical Institutions share a greater responsibility in developing youth and transforming them into future leaders and responsible citizens of the nation. The purpose of higher education is to give the students with sufficient knowledge and skill so as to function as a creative and productive member of the country. The prosperity or scarcity of a nation depends on the quality of the higher education. With the increasing number of institutions and students, quality has become an important concern.

Every organization has three basic forms of resources, physical, financial and human. Amongst all three, human capital has its own importance. In the case of higher education, academic institutions are major focus centers with the faculty working in them being the nucleus. The quality of education in any technical Institution is majorly dependent on its faculties and their intellectual strength. Due to the imbalance between the demand and supply it has become more challenging for institutions to attract, retain and satisfy its human resource. The faculties working at these Institutions have a large share of responsibility to contribute in this global aim of expansion and development. So, the Institutions should invest in effectual strategies to attract the right workforce and keep them motivated to generate competent future human capital. In order to maintain the quality it is important for the Institutions to have the right number of motivated employees to work and shape the future of their students as well as their own. Motivating employees has become one of the most significant and most demanding activities of human resource department of any organization. There is no doubt that efficiency suffers with de-motivated personnel. Similarly in case of technical Institutions motivated faculty ensures the overall teaching and learning experience is prolific and productive. Previous studies have showcased that employees are motivated through varied factors like monetary/non monetary incentives, training and development, work environment etc. Sinclair, et al. (2005) has mentioned the power of money that causes motivation through the process of job choice. They have explained that money has an influential impact on retention, motivation and satisfaction level of the faculty. Also, Furham et al. (2009) has explained that rewards are one of the important elements in motivating employees and building strong feeling of association and membership with the organization. Further

the institutional policies like status and prestige and supportive management are considered equally important motivating factors. With an aim of exploring more in this context, the current study aims at finding the motivating factors for the faculty joining technical institutions located in Delhi/NCR region.



VIEW OF RESEARCH LITERATURE

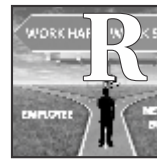
Stensaker and Pratasavitskaya (2010) observe that higher education has undergone radical changes with few aspects still being left untouched. Pink (2010) states that the conventional reward and punishment system might have adverse effect on the motivation level of its faculty members.

Trimmer (2006) also supports the view by stating that reward and punishment based system may not result in effective teaching and research but rather occupy the faculty in less useful tasks. This has given a new horizon to faculty motivation and has generated the need to explore the reasons behind faculty motivation and its impact on effective teaching. Motivation is an effort extended or directed towards a specific goal (Johns, 1996). Majorly there two types of motivation: Intrinsic and extrinsic (Ryan & Deci, 2000). Intrinsic motivation is pursuing an activity for enjoyment, gratification and interest unlike extrinsic focusing on doing an activity for a specific purpose or output (Ryan & Deci, 2000a; Vallerand, 2000; Meyer & Gagné, 2008). Deci & Ryan (2000) also explicitly highlight that faculty members are intrinsically motivated and have less impact of intrinsic motivation factors. Intrinsic factors generally influence the higher level employees and have an impact on lower level employees in an organisation. Intrinsic motivation has become a vital area of research concerning faculty motivation (Pink, 2009). Maslow's (1954) hierarchy of needs and Herzberg's (1968) two-factor theory are the most widely accepted ones with employee motivation being shown to have correlation with factors such as rewards, recognition relationship, advancement and status. Adding to this, Ballou and Podgursky (1995) analyzed data from teachers in the National Longitudinal Study of the High School Class of 1972 and concluded that a 20 percent salary raise for all teachers would be associated with an increased ability of the district to attract new and practicing teachers with higher test scores. According to Banjoko (1996) many managers use money to reward or punish workers. In addition, Luthans (1998) asserts that motivation is the process that arouses, energizes, directs, and sustains good behaviour and performance and money is not the only motivator. Colvin (1998) observes that financial incentives will get people to do more of what they are doing. Adeyemo et al. (1999) opines that there are basic assumptions of motivation practices by managers which must be understood.

Olajide (2000) states that motivation is goal-directed, and cannot be outside the purview of the goals of any organization whether public, private, or non-profit. In their descriptive analysis of data from teachers' personnel files in New York Lankford, Loeb, and Wycoff (2002) found that New York State teachers who were transferred across district lines between

1993 and 1998 earned substantial salary increases (between four and 15 percent), suggesting that they were attracted by higher pay. Kiviniemi et al. (2002) claimed that job satisfaction is built if employees were motivated due to rewards. Chiu et al, (2002) highlighted that employee motivation levels are affected by salaries received. Luthans and Sommers (2005) argue that motivation energizes and alters attitudes. Sinclair, et al. (2005) demonstrates the motivational power of money through the process of job choice. They explain that money has the power to attract, retain, and motivate individuals towards higher performance and career survival would depend on career resilience. Edwards et al. (2006) reported a correlation between rewards and motivation; and rewards and job satisfaction. Bhatnagar (2007) further supported the notion that motivation is an internalized drive. Milne (2007) and Rafikul and Ahmad (2008) implied that rewards offered by employers significantly improve an employee's motivation towards their work and subsequently build job satisfaction. Adding to this, Furham et al. (2009) entailed that organizations and managers recognized rewards as an important element in motivating employees to perform readily, exert substantial effort on behalf of the organization and exhibit strong desire to maintain membership. Hsieh (2007) discussed the importance of motivation in relation to productivity. Motivation is a field of humanistic science that has a direct effect on an employee's desire to complete a given task (Adair, 2006). Lerner, Schoar, and Wang (2008) denoted that academic investments are the results of successful programs. These two factors mentioned by Hsieh (2007) and Lerner, Schoar, and Wang (2008) lay a foundation for the importance of maintaining high motivation amongst faculty in order to improve overall academic performance. This becomes utmost important while considering the changes higher education

will experience in coming years, as discussed by Lefebvre (2008). He predicted that by the year 2020, the growth rate of enrolled students would exceed 120 million. Monetary benefits play an important role in building the interest in job and keeping the employees motivated. This may not be the only reason for motivation but is one of the major reasons though, Berettiet. al (2013). In addition to this Garcia et al (2012) states that an act of appraising ones performance and providing perks and promotions accordingly may also help the Institutions to build satisfaction amongst their employees. Proper growth and achievement may act as one of the major contributors to faculty motivation and satisfaction, Satyawadi and Ghosh (2012). Working conditions and the environment around play a very important role in deciding the level of performance of employees working in an organization. Employees working in poor conditions may show the negative performance as well as motivation towards their work, Jung and Kim (2012). The other concern is the job security, Yamamoto (2013). Job security motivates the employees and automatically results in the better performance. Long term goals with the employer help the employee to focus more on effective results and organizational commitment. Candi et al (2013) states that positive behavior in employees can be reinforced by providing recognition and ample growth opportunities. This may build employee career as well as help the organizations increase their overall productivity.



RESEARCH GAP

Though there is rich literature and large number of researches being conducted in the area of motivation of employees across different sectors but there is a dearth of studies which focus in on faculty motivation in the Indian context. It is

Table 1: Factors Identified through Literature Review

Author, Year	Factors Reviewed	Dimensions Identified
Beretti et al. (2013), Park (2010), Mahazril et al. (2012), Chen et al, (2006), Luthans, (1998)	Monetary incentives, good package, benefits in the form of payment, rewards, good pay, good working environment, promotion, Work Itself, Pay, Supervision, Co-Workers, and Promotion	Salary and other benefits (A1) Status/Prestige of the Institute (A4)
Wells (2013) Mengue et al (2013) Olajide, (2000).	Provide feedback to the employees, setting standards; provide autonomy, supportive management, Directions for completing tasks, Management Support, team work, leadership style, information availability and communication.	Supportive and approachable management (A5) Greater Academic Freedom/ Flexibility (A2)
Singh & Panda, Online Pandey& David (2013), Desai et al. (2010)	Safe and cooperative environment, satisfactory work environment, free and frank communication with supervisor, opportunities to grow, recognition, empathic attitude, caring and valuing employees, involvement in decision making.	Comfortable working conditions (A7) Greater growth opportunities (A9)
Ubogu & Van den Heever 2014, (Olajide, 2000).	Improved research management, modern infrastructure, promotions, and adequate funds.	Better infrastructure (A6) Research/consulting opportunities (A8)
Comm & Mathaisel (2000), Zuber (2001), Stewart & Barling (1996), Hegewisch, A., & Gornick, J. C. (2008)	Work Load, Comfortable Working Environment, Flexible Timing, work life balance, work from home, closer to home.	Relaxed workload (A3) Work Life Balance (A12) Closer to Home (A11)
Pravin and Kabir (2011), Yamamoto (2013), Betts (1998)	Job Security, Career Exploration, Overall Job Satisfaction	Job Security (A10)

important for the Institutions to understand the different factors that motivate their faculty and their intent to impart quality education. Taking cognizance of this fact, the current study focuses on identifying the faculty motivators for joining a technical Institution.

OBJECTIVE OF THE STUDY

The objective of the study is to identify the faculty motivators for joining a Technical Institution.



RESEARCH DESIGN

A structured questionnaire with five point likert scale was designed to collect the data. Factors were identified through exploratory factor analysis and validity was checked through face validity. 12 items were selected as constructs for the survey. Items were rated on likert scale of five points which is the most popular choice for ordinal scale; the opinion indicated as “critical” has been assigned the weight of 5.

SAMPLING AND DATA COLLECTION

The sample was drawn through simple random sampling technique and questionnaire was distributed to 800 faculties working in various technical institutions approved by AICTE in Delhi NCR region. 452 completely filled-in questionnaire were received which were subjected to further analysis. The sample distribution was as follows, Table 2:

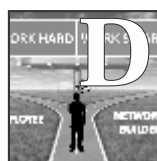
Table 2: The Sample Distribution of Study Based on Responses of Faculty

Gender	Males	177
	Females	275
Age	Less than 25 Years	56
	25- Less than 35 Years	252
	35- Less Than 45 Years	118
	45 years and above	26
Marital Status	Married	350
	Unmarried	102
Education Qualification	Graduate	11
	Post Graduate	228
	Doctorate	64
	NET Qualified	130
	Doctorate + NET	19
Current Designation	Assistant Professor	336
	Associate Professor	82
	Professor	19

STATISTICAL TOOLS USED

Exploratory factor analysis (EFA) helps the researchers to simplify the set of interrelated structures. It helps in identifying the factors belonging to a similar category from the set of observed variables (Child, 1990). It simplifies the research and provides better idea of underlying variables and factors in the data. Once the factors have been analyzed, Confirmatory Factor Analysis helps to confirm that identified factor have strong relationship with the underlying latent construct. In this study also, both the techniques are applied to

get better idea of factors resulting in faculty motivation.



ATA ANALYSIS

Principal component analysis was used with varimax rotation. The correlations between factors and the different items expressed by means of the factorial loads were significant. The Kaiser- Meyer-Olkin measure of sampling adequacy came out to be .677 which is above .65 (the acceptable level). This shows that the items selected for the questionnaire are appropriate. The chi-square value of Bartlett's Test of Sphericity was found to be significant (chi sq= 455.04, p= .000), this means the factor analysis is acceptable. The factor analysis generated four components with eigenvalues above 1. The varimax rotation clubbed the items on four components as shown in Table 3.

Table 3: Showing Rotated Component Matrix of Factors Motivating Faculty

Items		Components			
		1	2	3	4
A1	Salary and other		653		
A2	Greater Academic				900
A3	Relaxed workload			604	
A4	Status/Prestige of the Institute	550			
A5	Supportive and approachable management	721			
A6	Better infrastructure	811			
A7	Comfortable working conditions	633			
A8	Research/consulting opportunities		614		
A9	Greater growth opportunities		521		
A10	Job security		731		
A11	Closer to home			846	
A12	Presence of Work Life Balance			703	

There were four components which were named as “Institutional Factors”, “Individual Development Factors”, “Comfortable Job” and “Greater Academic Freedom”. Items A4, A5, A6, & A7 got clubbed on First component which can be named as 'Institutional Factors' comprising of prestige of institute, supportive management, better infrastructure and comfortable working conditions. The second component got high factor loadings of item A1, A8, A9, & A10. This was named as 'Individual Development Factors' defined by salary and other benefits, growth opportunities, research/consulting opportunities and job security. Three items i.e. A3, A11 & A12 got clubbed on third component which can be named as 'Comfortable Job' characterized by nearness to home, relaxed workload and presence of work life balance. There is only one

item i.e. Greater Academic Freedom which is loaded on fourth component and has a very high loading of .900, so this can be retained as a factor. The cronbach alpha reliability of this test was found to be .766, which is an acceptable value of reliability.

Further, Confirmatory Factor Analysis is applied to identify the critical factors leading to Motivation to join technical institutions through Lisrel9.1 version.

The factors as identified by principal component analysis were then subjected to confirmatory factor analysis on a sample of 452 participants. The goodness of fit was achieved by removing Third and Fourth Factor and also item A8 from the second factor. The path diagram and goodness of fit indices calculated in the first attempt is shown in Figure 1

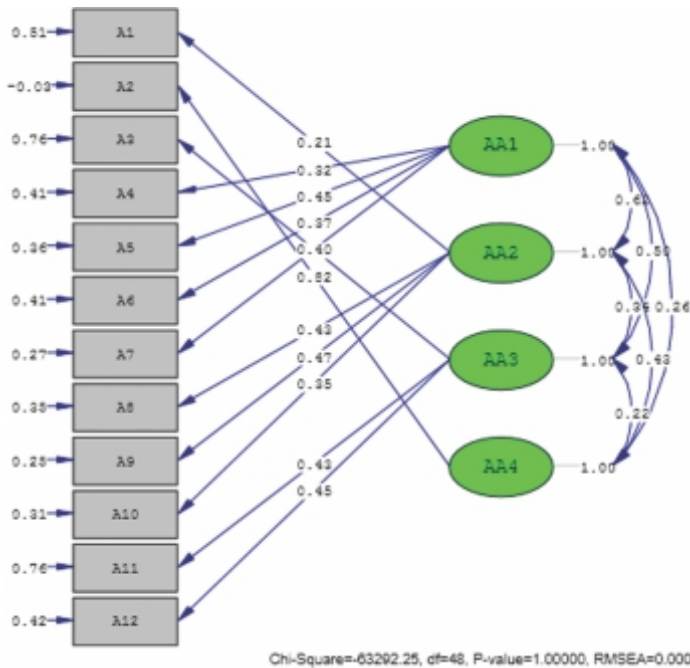


Figure 1: Path Diagram of Factors Motivating Faculty

Hence the preliminary model was amended to improve the model fit. Modification indices and standardized residuals calculated through Lisrel 9.1 version to modify the model resulting in the final model (Figure 2)

The final model was significantly better fit in comparison to the preliminary model. The chi- square value is 37.88 with p=0.0003 and the value for CFI as 0.967, SRMR as 0.0437 and RMSEA as 0.065. All the measures of goodness of fit are now acceptable therefore model is acceptable. Two factors were retained after undertaking confirmatory factor analysis as shown in Table 6. Amongst the Institutional Factors; Status and prestige of the institution contributes 24% to motivation, Supportive and approachable management contributes 40.6%, Better infrastructure contributes 33.6% and comfortable working conditions contributes 43.6% to motivation of faculty to join a technical institution. Amongst the Individual Development Factors; salary and other benefits contributes 11.2%, greater growth opportunities contributes 43.6% and job security contributes 46.6% to motivation of faculty to join a technical institution.

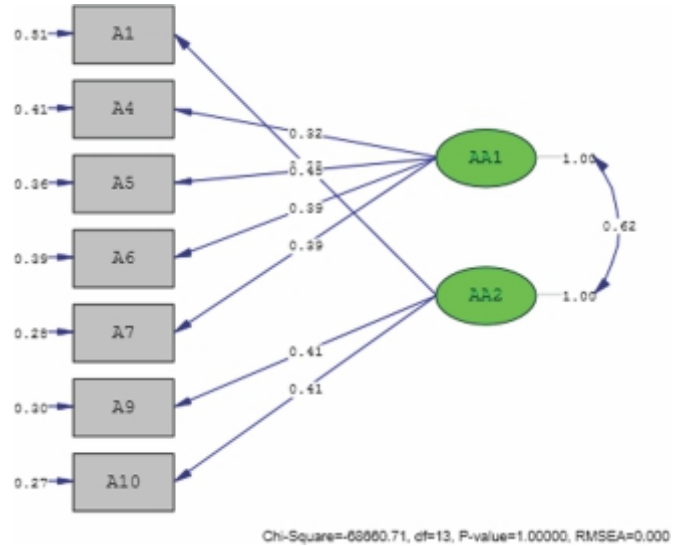


Figure 2: Path Diagram of Factors Motivating Faculty

Table 4: Critical Factors Motivating Faculty to join Technical Institutions

		Beta	Standard Error	R2
Factor 1 'Institutional Factors'				
A4	Status/Prestige of the Institute	0.367	0.039	0.241
A5	Supportive and approachable management.	0.806	0.0646	0.406
A6	Better infrastructure	0.381	0.0338	0.336
A7	Comfortable working conditions	0.791	0.0611	0.436
Factor 2 'Individual Development Factors'				
A1	Salary and other benefits	0.354	0.0588	.112
A9	Greater growth opportunities	0.533	0.0458	0.436
A10	Job security	2.988	0.250	0.466



INDINGS & CONCLUSION

Confirmatory factor analysis was applied and resulted in identifying two broad factors leading to faculty motivators for joining technical institutions. The first factor was “Institutional Factors” defined by status/prestige of the institute, supportive and approachable management, better infrastructure, and comfortable working conditions. The second factor is “Individual Development Factors” defined by salary and other benefits, greater growth opportunities and job security. On mapping the findings with existing theories this can be observed that these when combined with different theories of motivation showcase a significant relationship. These factors when combined as per the Maslow’s Hierarchy of Needs can be attributed to Physiological Needs, Security Needs, Relationship Needs, and Esteem Needs. Also if these factors are fitted in Herzberg’s framework, then most of the factors are Hygiene factors except one i.e. Greater Growth Opportunities, so this posits a challenge to the Herzberg’s

framework that what should be considered as motivators in present scenario. If the Adelfer's ERG theory is reviewed, these factors are best fit into the category of Existence, relatedness and growth needs of an individual.

In the current times the overall view of academics has revolutionized and the need for competent faculty has increased manifold. The success of any academic Institution is dependent on the level of competence, motivation and satisfaction of its human resource. It's high time for the Institutions to consider the importance of their workforce and their wellbeing. With the fluctuating demand and supply ratio of faculty, identifying the faculty motivators will help the institutions to attract, motivate and retain their faculty in a better way. The organizations that provide good learning environment, compensation, opportunities to grow and freedom to make decisions are always branded as good employer (Malati et al, 2012). The current study revealed that there exist a positive relationship between potential factors and the motivation of the faculty. These potential factors include institutional factors such as prestige of the Institute, supportive and approachable management, better infrastructure and comfortable working conditions along with the individual development factors such as salary and other benefits, greater growth opportunities and job security. The Institutions may enhance the motivation of their faculty members by:

- Maintaining a conducive work environment and focusing on the providing good infrastructure for the faculty to pursue their research.
- Providing adequate compensation and other benefits.
- Creating growth opportunities in terms of career mobility, particularly in research activities.
- Ensuring Job security as it increases job commitment and overall faculty satisfaction.
- Providing growth opportunities in the institute with respect to promotions and conditions for additional increments should be created and given to faculty members.
- Providing developmental opportunities in the form of granting permissions for participation in various seminars/ conferences, FDP's or Refresher courses.
- Formulating fair and transparent Institutional Policies and duly communicating them to the faculty.

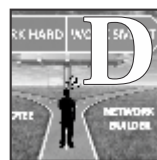
These practices can help the Institutions in retaining their faculty and they may serve as a valuable input to Faculty's

motivation. Institutions can improve the overall quality of education by taking all these important aspects into consideration.



IMITATIONS OF THE STUDY

The current study has not explored the concept across demographic and psychographic factors. There may also be other socio-economic factors such as personality, socio- economic which might contribute to faculty's perception towards an Institution but they have not been considered under this research. The study was conducted in Delhi NCR thus may not represent the perspective of the entire population. Further the faculty members in urban, semi urban or rural areas must also be provided better emphasis. Also the responses given by the faculty members may be highly divergent based on the Institutions culture and faculty's attitude towards their workplace. Continued replication of such research may provide enough data for better reliability and validity of research.



DIRECTIONS FOR FUTURE RESEARCH

The demand for studying motivational factors are increasing at faster rate due to intense competition and increase in the number of technical Institutions around the country. Cross sectional or longitudinal studies must be conducted in order to analyze the changing needs of faculty members in response to changing needs of the society. Intrinsic and extrinsic motivation factors both have equal importance but might differ across different levels and designations. This may serve as the basis for further research for understanding both the categories of motivation and their impact on future tenure of faculty members. Motivation is a discipline that may serve as the basis for many other disciplines for example faculty satisfaction, faculty retention, faculty's citizenship behavior, faculty engagement, employer branding to state a few. Further studies may be conducted to understand the relationship between faculty motivation and other concepts related to human resource management. These might serve as an important input to the management of the Institutions while taking decisions aimed at enhancing the overall productivity of the Institute.

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Impact of Behavioural Factors on Job Satisfaction among University Teachers in India - An Empirical Analysis

**Dr. Dimpy Sachar*





ABSTRACT

This study tries to confirm or validate the factors affecting job satisfaction among university teachers. Four behavioral factors namely, attitude and behavior of authorities, coordination and cooperation among the co-faculty members, attitude and behavior of administrative staff and attitude and behavior of students has been identified through Exploratory Factor Analysis (EFA). The study conducted in two public and two private universities of Delhi and NCR region in India. 480 questionnaires were administered to the teachers at all levels. 405 questionnaires were returned duly filled and analyzed. A Confirmatory Factor Analysis (CFA) is applied by using Amos 20 on the factors retrieved through EFA to validate the results achieved.

Keywords: Confirmatory Factor Analysis, Job Satisfaction, University, Teachers, Exploratory Factor Analysis

INTRODUCTION

Higher education system consists of faculty persons considered as the most important and valuable resources for it. Imparting education and guiding students are the responsibility of teachers. Qualified faculty also undertakes research and development activities in their particular fields which lead to the enhancement of quality of teaching and research. Job satisfaction of teachers emerged as an important and unavoidable aspect of improving the quality of higher education in India. There are various determinants affecting the university teacher's job satisfaction. A dissatisfied teacher intends to leave the job and it leads to the shortage of qualified teachers. Teacher's job performance is related with their job satisfaction. Higher the job satisfaction higher the productivity of teachers, lower the job satisfaction lower the productivity of teachers. Therefore, it is necessary to identify the dimensions that satisfy or dissatisfy them the most. The purpose of this article is to investigate the behavioural dimensions leads to the job satisfaction. Confirmatory factor analysis is a technique commonly used for the analysis of latent variables, and has been applied to analyze complex behavioral constructs. We perform confirmatory factor analysis to investigate how job satisfaction of teachers gets influenced by attitude and behavior of students, attitude and behavior of authorities, attitude and behavior of administrative staff and by coordination and cooperation among the co-faculty members..



LITERATURE REVIEW

Paul Spector describes job satisfaction as “the extent to which people like (satisfaction) or dislike (dissatisfaction) their jobs” (Spector, 1985; Spector, 1997). (Slavitt et. al) Job satisfaction is defined as an evaluation of one's adaptation to work and work related environment like, physical, psychological factors, which have a complex relationship with each other. Faculty satisfaction is a complex issue that is difficult to describe and predict. Included constructs are *triggers* described as changes in lifestyle (e.g., transfer to a new position or change in rank) and *mediators* such as demographics, motivators, and conditions in the environment that influence other variables (Hagedorn, 2000). (Chang, 1992) stated that job satisfaction was the extent to which an individual person, or a majority of an organization's employees, was satisfied with the job assigned. As defined by (Li, 2002), job satisfaction was a person's attitude and affective responses towards his/her current job descriptions, that develops the positive and negative feeling towards the job. Whether or not a worker was satisfied with the job depended on the gap between actual and expected value he/she derived from a particular workplace: the smaller the gap is, the greater the job satisfaction is.

Research also found that a positive social environment and social support motivates teachers positively and enhances their level of satisfaction (Day et al., 2007; Scheopner, 2010; US Department of Education, 1997) whereas negative social

environment causes burnout (Hakanen et al., 2006; Leung & Lee, 2006; Schaufeli & Bakker, 2004). However, this research evidence is not consistent, and in a study of Chinese teachers, (Wriqi, 2008) found that collegial relations were weakly related to job satisfaction. Emotional support and positive relations with supervisors, colleagues, and parents may also promote a feeling of belonging.

It is obvious that teachers differ from typical employees in various ways. Therefore, tools that usually measure such job satisfaction dimensions as appreciation, recognition, proper communication, and relation with coworkers, fringe benefits, and job conditions, nature of work, organizational environment, organizations' policies and procedures, compensation, personal growth, promotion opportunities, social-security, supervision may not always match with teachers' job satisfaction aspects (Spector, 1997).

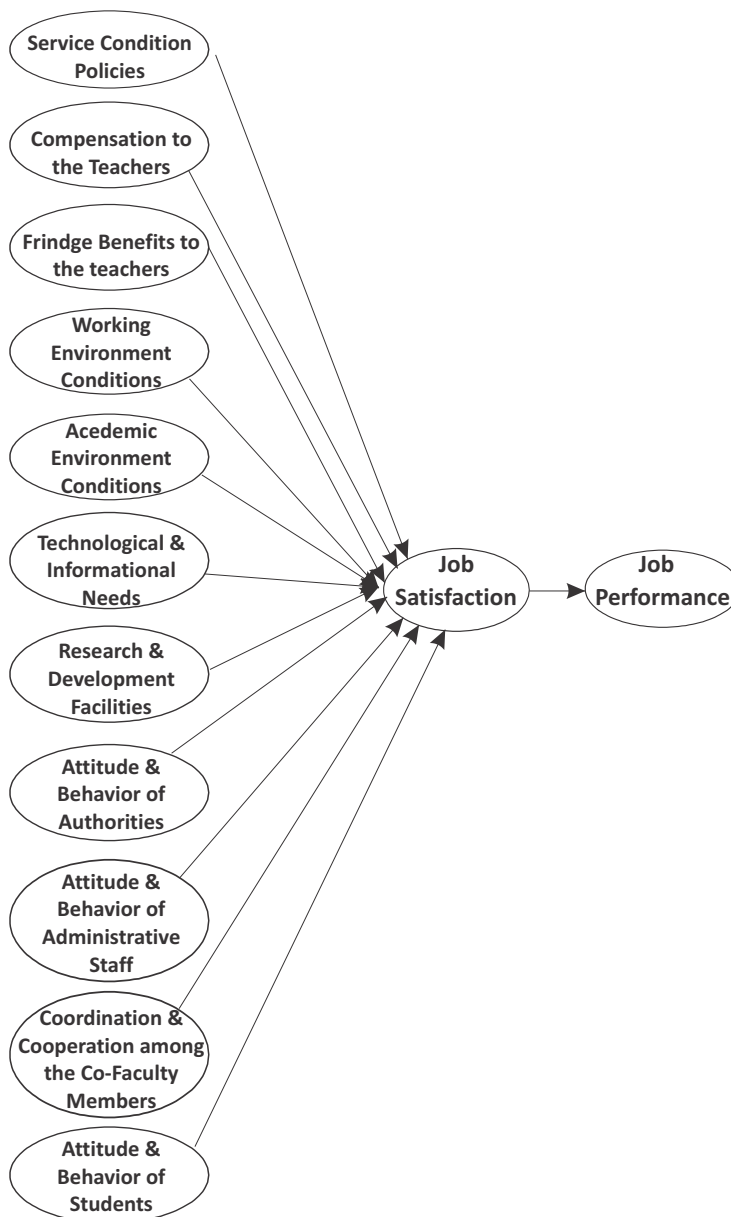


Fig: 1 Comprehensive Model of Job Satisfaction

(Ting, 1997), in his study reveals that job characteristics such as salary, promotional opportunity, task clarity and significance, and skills utilization, as well as organizational characteristics such as commitment and relationship with supervisors and co-workers, have significant effects on job satisfaction. (Blum and Naylor, 1968), found that job satisfaction is the result of various attitudes possessed or developed by an employee. Their attitudes are related to the job and are concerned with such specific factors as wages supervision, steadiness of employment, conditions of work, opportunities for advancement, recognition of ability, fair evaluation of work, social relations on job, prompt settlement of grievances, and fair treatment by employer and similar other items. (Ahuja, 1976) in his study reported that dissatisfaction increases when one has to work under an incompetent, inefficient and indifferent head or boss. (Foles et. al., 2000) revealed that employees who are experiencing democratic leadership are more satisfied as compared to the group who is facing autocratic leadership.

Some researchers mentioned that supervision; work itself, promotion and recognition being important dimensions of teachers' satisfaction with work (Rosser, 2005; Sharma & Jyoti, 2009; Tillman & Tillman, 2008). However, there are also some other aspects that significantly contribute to teachers' satisfaction and should not be excluded in the terms of understanding teachers' job satisfaction phenomenon. "Relationships with students are largely contributing to teachers job satisfaction" – states (Ramatulasamma and Bhaskara Rao, 2003). Other researchers highlight such dimensions of teacher job satisfaction as: students' characteristics and behavior, classroom control, availability of the resources, relations with students, relations with colleagues and administrators (Rosser, 2005; Sharma et al., 2009).

Teacher job satisfaction refers to a teacher's positive affective relation to his or her teaching role and is a function of relationship between a teacher's wants and perceptions from their teaching activities (Zembylas and Papanastasiou, 2004). Teachers' job satisfaction may result from characteristic of teaching profession which can contribute to development of students' lives (Zembylas & Papanastasiou, 2004). In the study conducted by (Hean & Garrett, 2001), revealed that factors affecting teachers' job satisfaction are relationship with students, colleagues, parents, manager, a sense of autonomy, external rewards, recognition and respect, and personal growth. Factors such as poor pay, poor professional status, workload, and excessive pressure to well educate students have an effect on teachers' dissatisfaction (Hean & Garrett, 2001). In the studies examining teachers' job satisfaction conducted in Turkey, it is founded that teachers were more satisfied with relationships with colleagues and manager, to help students through teaching, while they have satisfaction from salary (Azar & Henden, 2003; Bozkurt & Bozkurt, 2008).



RESEARCH METHODOLOGY

Research Objective:

- a) To determine whether the items selected represented empirically supported construct of teacher job satisfaction
 - b) To identify the measured variable within the latent constructs.
 - c) To assess the measurement model validity of the constructs.
- **Type of Research:** An exploratory research was conducted for determining the factors affecting job satisfaction.
 - **Sample:** The present study consisted of 450 academicians from both Public and Private Universities in Delhi and NCR region.
 - **Sampling Method:** Convenient sampling method was used for collecting data.
 - **Data Collection:** Research data was collected through a questionnaire. Total 450 questionnaires were distributed to the university teachers, consisting of Assistant Professors, Associate Professors, and Professors. Out of these 450 questionnaires, 405 relevant questionnaires with a response rate of 90% were received. The confidentiality and anonymity of the respondents has been cautiously maintained.
 - **Research Instrument:** The survey instrument was created after conducting literature reviews and in depth interviews with experts and statisticians. Preliminary versions of this questionnaire were reviewed and discussed by peers and academicians from all departments within the university.
 - **Statistical Tools:** The data has been analyzed by using SPSS 20.0 and AMOS 20.0 version. Cronbach alpha test has been administered to know the reliability of the data. Descriptive analysis is conducted to find out the mean values of each dimension. Confirmatory Factor Analysis (CFA) has been employed by researcher as a tool to establish the validity of the construct.
 - **Demographic Profile:** the profile of the respondents used in the study. These include designation, type of university, age, gender, qualifications, teaching experience, marital status and income. Profile of respondents for the questionnaires is highlighted below. The data has been collected from assistant professor, associate professor and professors from both the public and private universities. Response rate from the public universities are 49.4% and from private universities are 50.6%, comprising of 63.2% assistant professors, 22.0% associate professors, and 14.8% professors. The gender of respondents comprises of 49.1% males and 50.9% females from public and private

universities. With respect to age, 54.1 % respondents are from age group 25-35 years, 35.8% belong to 35-45 years of age group, and only 10.1% are 45 years and above. With respect to qualifications, 52.8% of the respondents have a postgraduate degree whereas 47.2% respondents have doctoral degree. The teaching experience of 62.2% of the respondents is 1-10 years, 24.4% respondents have an experience of 11-20 years, 9.4% of the respondents have taught for around 21-30 years, and only 4.0% respondents have a teaching experience of above 31 years. Around 81.7% of the respondents are married, whereas, 18.3% are unmarried. With respect to income group 41.7% belong to the income group ranging from 30,001-50,000 rupees, 24.7% of the respondents ranges between 50,001-1,00,000 rupees, 31.1% have an income of 1,00,000 rupees and above, and only 2.5% teachers have an income of less than 30,000 rupees.

Analysis & Interpretation

For convergent validity the variables must have significant factor loadings to one single factor. The condition of discriminant validity explains that a variable do not have significant factor loadings to many factors. The construct validity convergent as well as discriminant can be tested with the help of confirmatory factor analysis. Confirmatory factor analysis not only represents the structure of the constructs along with their measured variables. It also represents the correlation between the constructs. The CFA diagram is shown below in figure 2 and the related reliability and validity measures of behavioral dimensions are shown in subsequent tables.

Attitude and Behaviour of Students:

Teachers are the ones who impart truth, teach students, and clear up difficult questions. As far as the relationship between teachers and students is concerned, teachers teach students moral values and professional lessons and value and make them one of the most talented persons. Improving students'

relationships with teachers has important, positive, and long-lasting implications for teachers, students' academic, and social development. It was found that student's attitude and behavior towards teachers play an important role in the teachers' effectiveness and their satisfaction level.

Behaviour of students has a direct impact on the satisfaction of teachers. It acts as a lubricant to ameliorate the feelings between teachers and students, which are of great help to enhance the satisfaction of the relationship. The internal consistency reliability is measured by cronbach alpha and construct validity (convergent as well as discriminant) is analyzed. The results of the reliability and Construct validity Analysis are shown below in Table 1.

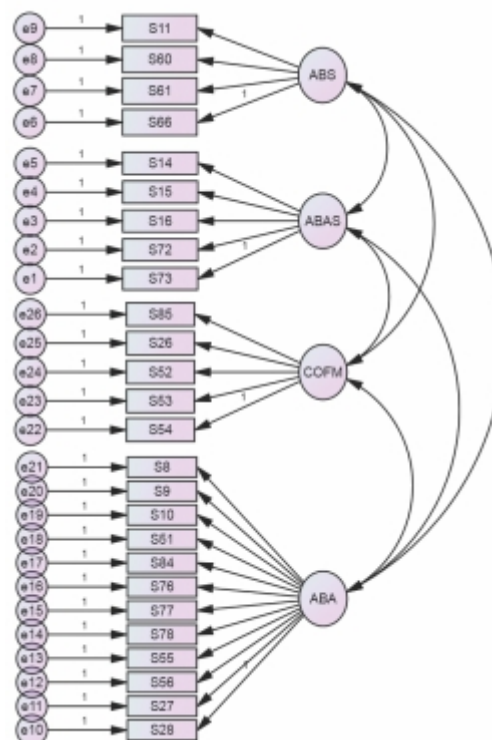


Fig: 2 Correlation between the Constructs

Table-1: Reliability & Validity Analysis of Attitude & Behaviour of Students

Factor Name	Variables	Internal Consistency reliability (Cronbach Alpha)	Construct Validity Measures			
			Convergent Validity Statistics		Discriminant Validity Statistics	
			Composite Reliability (CR)	Average Variance Extracted (AVE)	Maximum Shared Variance (MSV)	Average Shared Variance (ASV)
Satisfaction regarding attitude and behavior of students	Students are disciplined Teachers are respected by students Students feedback system is effective Arbitrary allotment of students for research projects	.881	0.883	0.655	0.038	0.013

The convergent validity is measured with the help of composite reliability as well as average variance extracted. The discriminant validity is measured with the help of maximum shared variance and average shared variance. The internal consistency reliability is measured with the help of cronbach alpha. The results indicate that the internal consistency of the construct is found to be high (cronbach alpha = .881). The Composite Reliability and Average Variance Extracted of the variables in the construct is found to be 0.883 and 0.655. This ensures that Convergent Validity of the construct exist. Because the Average Variance Extracted statistic is more than Maximum Shared Variance and Average Shared Variance, thus it indicates that the construct is valid w.r.t convergent as well as discriminant validity. Therefore, Discriminant Validity of the construct also exists. Satisfaction regarding attitude and behaviour of students along with its four variables is shown in the figure 3.

Table 2 reveals that the Standardised Regression Weights of all the variables is more than 0.7, which indicates that each item of the construct is significantly representing a part of *Attitude and Behaviour of Students*. The Standardised Regression Weights represent the correlation between the measured variable and the construct. In the results, it is analyzed that the Standardised Beta of the variable Teachers are respected by students is the highest. This shows that maximum number of teachers believe that even today teachers are respected by their students. It may be because teachers are putting all their efforts in nurturing the new generation of the country and transform them into bright young men and women. A passionate and skilled teacher always focus on effectively engaging students, ensuring their proper learning and shaping their development. The teachers know that to productively engage in our democracy and compete in our global economy, students need strong, well-rounded academic foundations, cultural and global competencies, the ability to collaborate, communicate, and solve problems, and strong digital literacy skills. This highly visionary dedication towards their students makes them earn respect from their

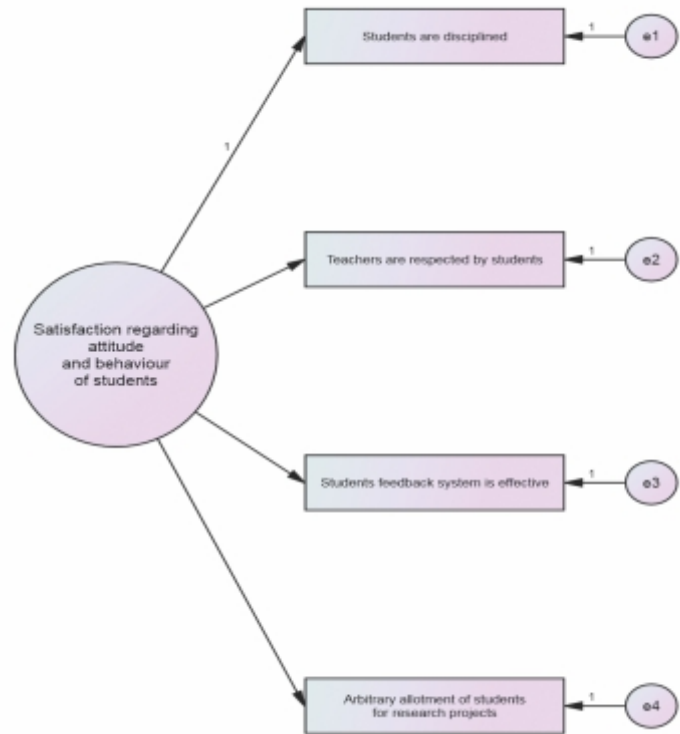


Fig: 3 Attitude & Behavior of Students along with its Measured Variables students, which increases their satisfaction level.

The next important variable is found to be Students feedback system is effective. This means that large number of teachers have a perception that students feedback system is effective in their university. This may be because universities are collecting this feedback for the purpose of improving the teaching quality, which facilitates students learning. Universities emphasize the importance of undertaking such a process in a non-threatening and supportive atmosphere through which enhanced learning environments can be created and sustained. Using the student's feedback for providing a list of recommendations for university systems and teachers, and not for punishing, they are more likely to

Table-2: Regression Analysis of Attitude & Behaviour of Students

Factor Name	Variables	Standard Beta (β)	Unstandardized Beta	CR	R ²	Fitness Indices	
Satisfaction regarding attitude and behavior of students	Students are disciplined	.778	1		60.5%	Goodness of Fit	
	Teachers are respected by students	.860	1.266	17.874	73.9%	CFI	1.000
						GFI	1.000
						AGFI	1.000
						NFI	1.000
						CMIN/DF	.034
	Students feedback system is effective	.845	1.286	17.590	71.3%	Badness of Fit	
	Arbitrary allotment of students for research projects	.752	1.144	15.461	56.5%	RMSEA	.000
						III 90	.000
						LO 90	.000

effectively enhance the teacher's satisfaction level.

The fitness of the construct is analyzed with the help of Goodness of Fit indices as well as Badness of Fit Indices as shown in the table. The Goodness of Fit Indices CFI (1.000), GFI (1.000), AGFI (1.000), and NFI (1.000) represent that the construct is statistically fit. Similarly the low values of Badness of Fit Indices represent the statistical fitness of the model.

Attitude and Behavior of Administrative Staff:

Academic administration is a branch of university or college employees responsible for the maintenance and supervision of the institution and separate from the faculty or academics, although some personnel may have joint responsibilities. Administrative Officials are responsible for implementing policies and procedures to ensure that the university is well-managed and in sound financial condition. For managing the working of the universities, the officials need to deal with the teachers. The attitude and behavior of administrative staff towards the teachers significantly influences university teacher's satisfaction level.

Faculty and non teaching staff relations are also one of the major factors affecting the level of job satisfaction among teachers. The internal consistency reliability is measured by cronbach alpha and construct validity (convergent as well as discriminant) is analyzed. The results of the reliability and construct validity analysis are shown below in Table 3.

The convergent validity is measured with the help of composite reliability as well as average variance extracted. The discriminant validity is measured with the help of maximum shared variance and average shared variance. The internal consistency reliability is measured with the help of cronbach alpha. The results indicates that the internal consistency of the construct is found to be high (cronbach alpha = .872). The Composite Reliability and Average Variance Extracted of the variables in the construct is found to be 0.874 and 0.584. This ensures that Convergent Validity of the construct exist. Because the Average Variance Extracted statistic is more than Maximum Shared Variance and Average Shared Variance, thus it indicates that the construct is valid w.r.t convergent as well as discriminant validity. Therefore, Discriminant Validity of the construct also exists. Satisfaction regarding attitude and behaviour of administrative staff along with its five variables is shown in the figure 4.

Table 4 reveals that the Standardised Regression Weights of all the variables is more than 0.7, which indicates that each item of the construct is significantly representing a part of *Attitude and Behaviour of Administrative Staff*. The Standardised Regression Weights represent the correlation between the measured variable and the construct. In the results, it is analyzed that the Standardised Beta of the variable, Red-tapism in releasing the grants is the highest. This shows that there is lot of red-tapism on the part of the university even in releasing the grants sanctioned by the central agencies, such

Table-3: Reliability & Validity Analysis of Attitude & Behaviour of Administrative Staff

Factor Name	Variables	Internal Consistency reliability (Cronbach Alpha)	Construct Validity Measures			
			Convergent Validity Statistics		Discriminant Validity Statistics	
			Composite Reliability (CR)	Average Variance Extracted (AVE)	Maximum Shared Variance (MSV)	Average Shared Variance (ASV)
Satisfaction regarding attitude & behavior of administrative staff	Non-teaching staff creates obstacles	.872	0.874	0.584	0.040	0.011
	Red-tapism in releasing the grants					
	Unnecessary harassment in the reimbursement of bills					
	Delays in releasing annual increments					
	Helpful in getting the research projects sanctioned					

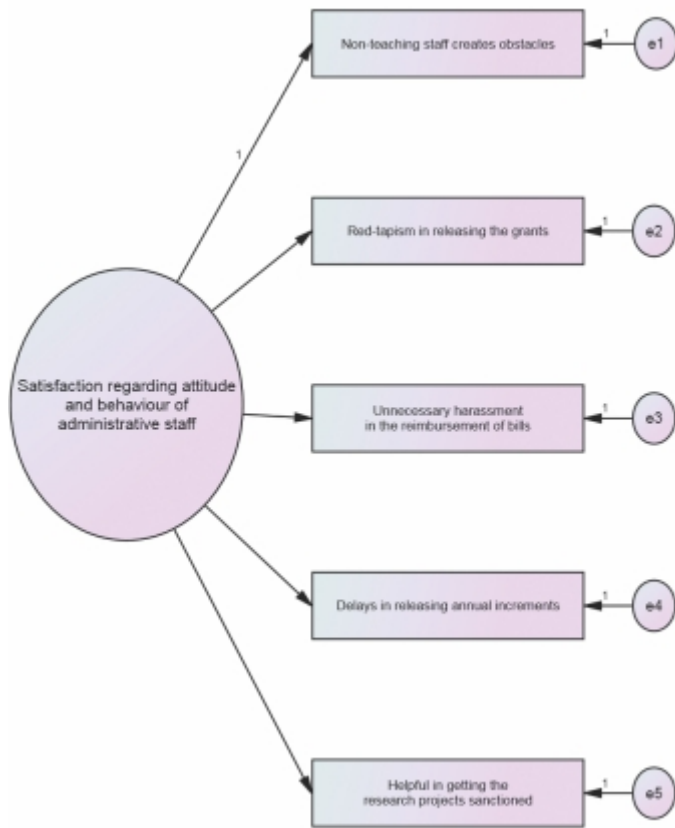


Fig: 4 Attitude & Behavior of Authorities along with its Measured Variables as UGC/ICAR/DST/MCI/ISSR. The results shows that maximum number of teachers believe that, even today, the non-teaching staff strictly adheres to the excessive paper work, tedious procedures, and strict official formalities before releasing the grants sanctioned by the central agencies. Rigidity in releasing the grants proves to be time- consuming

and expensive for the university and teachers both. So this tedious and humiliating treatment towards teachers dissatisfies them the most. Therefore, it is noticed that if this tendency is reduced or removed from the university, it will definitely help in enhancing the satisfaction level of teachers.

The next important variable is found to be **Non-teaching staff creates obstacles**. This depicts that in university non-teaching staff often creates obstacles in the academic affairs. It is proved from the results as large number of academicians observed that the non-academic staff of the university is a major obstacle to the progress in the field of education as their clerical mentalities creates hurdles. The staff always have a negative attitude while dealing with the cases/files and to find negative points just to deal or harass the teacher. Therefore, acting as an obstacle in the academic affair creates a sense of dissatisfaction among teachers. It is observed that the proper actions are taken by the university in developing and maintaining cordial relations, mutual trust, and respect for each other, responsibility between faculty and administrative staff will foster satisfaction among teachers.

The fitness of the construct is analyzed with the help of Goodness of Fit indices as well as Badness of Fit Indices as shown in the table. The Goodness of Fit Indices CFI (0.983), GFI (0.978), AGFI (0.934), and NFI (0.978) represent that the construct is statistically fit. Similarly the low values of Badness of Fit Indices represent the statistical fitness of the model.

Coordination & Cooperation among the Co-Faculty Members:

Coordination is an orderly arrangement of efforts to provide unity of action in the fulfillment of common objective, whereas, cooperation denotes collective efforts of persons

Table-4: Regression Analysis of Attitude & Behaviour of Administrative Staff

Factor Name	Variables	Standard Beta (β)	Unstandardised Beta	CR	R ²	Fitness Indices	
Satisfaction regarding attitude & behavior of administrative staff	Non-teaching staff creates obstacles	.821	1		67.4%	Goodness of Fit	
	Red-tapism in releasing the grants	.833	.957	18.446	69.5%	CFI	.983
	Unnecessary harassment in the reimbursement of bills	.785	.943	17.176	61.6%	GFI	.978
						AGFI	.934
						NFI	.978
	Delays in releasing annual increments	.758	.880	16.432	57.4%	Badness of Fit	
Helpful in getting the research projects sanctioned	.604	.668	12.451	36.5%	RMSEA	.091	
					HI 90	.132	
					LO 90	.054	

Table-5: Reliability & Validity Analysis of Coordination & Cooperation among the Co-Faculty Members

Factor Name	Variables	Internal Consistency reliability (Cronbach Alpha)	Construct Validity Measures			
			Convergent Validity Statistics		Discriminant Validity Statistics	
			Composite Reliability (CR)	Average Variance Extracted (AVE)	Maximum Shared Variance (MSV)	Average Shared Variance (ASV)
Satisfaction regarding coordination & cooperation among the co-faculty members	Colleagues show interest in mine professional problems/achievements Colleagues are helpful Personal problems can be easily discussed Colleagues bicker and criticize each other Teachers are divided into groups	.881	0.884	0.605	0.052	0.011

working in an enterprise voluntarily for the achievement of a particular purpose. A climate which fosters effective learning, both within class and about the university, is at the heart of the education process. Such a climate is best promoted through focusing on the creation and maintenance of good relationships: among the staff (colleagues) themselves. Teachers desire to work in a friendly and healthy atmosphere as this has a direct impact on their minds and satisfaction level.

If co-faculty members are working appropriately with each other, involved in supporting learning and understand the roles they are expected to fulfill the it will definitely contributes in increasing the satisfaction level of teachers. The internal consistency reliability is measured by cronbach alpha and construct validity (convergent as well as discriminant) is analyzed. The results of the reliability and construct validity analysis are shown below in table 5.

The convergent validity is measured with the help of composite reliability as well as average variance extracted. The discriminant validity is measured with the help of maximum shared variance and average shared variance. The internal consistency reliability is measured with the help of cronbach alpha. The results indicates that the internal consistency of the construct is found to be high (cronbach alpha = .881). The Composite Reliability and Average Variance Extracted of the variables in the construct is found to be 0.884 and 0.605. This ensures that Convergent Validity of the construct exist. Because the Average Variance Extracted statistic is more than Maximum Shared Variance and Average Shared Variance, thus it indicates that the construct is valid w.r.t convergent as well as discriminant validity. Therefore, Discriminant Validity of the construct also exists. Satisfaction regarding coordination and cooperation among co-faculty members along with its five variables is shown in the figure 5.

The results in table 6 indicates that the Standardised Regression Weights of all the variables is more than 0.7, which indicates that each item of the construct is significantly representing the part of Coordination and Cooperation

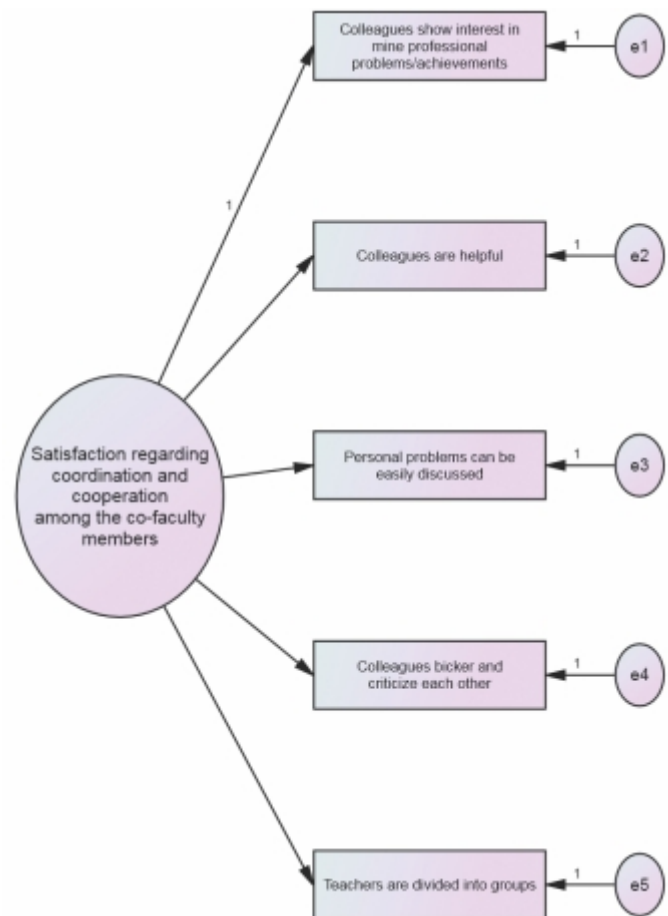


Fig: 5 Coordination & Cooperation among the Co-Faculty Members along with its Measured Variables

among the Co-faculty members. The Standardised Regression Weights represent the correlation between the measured variable and the construct. In the results it is observed that the Standardised Beta of the variable Colleagues show interest in mine professional problems/achievements is the highest. This shows that the most influencing variable of the construct is that the colleagues show their keen interest when teachers discuss their professional problems/achievements with them. After going through the table, it was analyzed that majority of teachers are having perception that their colleagues show interest when they discuss their professional problems/achievements with them. It may be due to the professionalism among teachers. Professional attitude of teachers play a fundamental role to keep direct relationship with other teachers. They do not hesitate to share their experiences with their colleagues. Rather they seek guidance and provide support to others in the field of education. Teachers with positive attitude have stable emotions and feelings. They demonstrate affection, patience, sincerity, and care while interacting with co- teachers. Development of positive professional attitude makes the teachers empathetic, considerate, and reflective, which in turn, effectively contributes in enhancing the satisfaction level of teachers.

The next important variable is found to be Colleagues bicker and criticize each other. This depicts that large number of teachers still believe that their colleagues bicker and criticize each other. When there is a workplace conflict then it will turn into a stressful work environment and personal conflict between teachers, which can be both a cause and effect of this stress. Bickering and criticizing each other leads to waste of time and energy, high tension, decreased productivity, violence, severed relationships, and absenteeism which has a

negative affect on the satisfaction level of teachers. Therefore, it is observed that if concerned authorities take positive action in resolving the conflict then they will be able to create a safer environment and more enjoyable place to work, which will increase the satisfaction level of university teachers.

The fitness of the construct is analyzed with the help of Goodness of Fit indices as well as Badness of Fit Indices as shown in the table. The Goodness of Fit Indices CFI (0.927), GFI (0.925), AGFI (0.775), and NFI (0.923) represent that the construct is statistically fit. Similarly the low values of Badness of Fit Indices represent the statistical fitness of the model.

Attitude and Behaviour of Authorities:

Attitude, approach and overall behavior of superior towards subordinates, that is, to what extent superiors are reachable, unbiased supportive, just and friendly, determine employee's morale. Authorities often treat their subordinates differently, creating a relationship that affects their overall job satisfaction and commitment to the organization. The relationship with the authority can be classified as high in quality or good (that is one having trust, respect and loyalty). Alternatively it can be classified as low in quality or bad (that is one reflecting mistrust, low respect, and lack of loyalty). This factor has a direct effect on teacher's satisfaction.

The job satisfaction among teachers not only arises from the job but also from the relationship with their supervisors and authorities. The internal consistency reliability is measured by cronbach alpha and construct validity (convergent as well as discriminant) is analyzed. The results of the reliability and Construct validity Analysis are shown below in table 7.

Table-6: Regression Analysis of Coordination & Cooperation among the Co-Faculty Members

Factor Name	Variables	Standard Beta (β)	Unstandardised Beta	CR	R ²	Fitness Indices	
Satisfaction regarding coordination & cooperation among the co-faculty members	Colleagues show interest in mine professional problems/achievements	.813	1		66.1%	Goodness of Fit	
	Colleagues are helpful	.788	1.038	17.063	62.1%	CFI	.927
	Personal problems can be easily discussed	.730	1.090	15.528	53.3%	GFI	.925
						AGFI	.775
						NFI	.923
						CMIN/DF	16.770
	Colleagues bicker and criticize each other	.796	1.180	17.278	63.4%	Badness of Fit	
	Teachers are divided into groups	.759	1.098	16.284	57.6%	RMSEA	.198
						HI 90	.236
						LO 90	.162

Table-7: Reliability & Validity Analysis of Attitude & Behaviour of Authorities

Factor Name	Variables	Internal Consistency reliability (Cronbach Alpha)	Construct Validity Measures			
			Convergent Validity Statistics		Discriminant Validity Statistics	
			Composite Reliability (CR)	Average Variance Extracted (AVE)	Maximum Shared Variance (MSV)	Average Shared Variance (ASV)
Satisfaction regarding attitude & behavior of authorities	Autocratic behavior	.956	0.956	0.647	0.096	0.036
	Attention to the grievances of the teachers					
	Believe in divide and rule					
	Devotes time for the general welfare of teachers					
	Whims of the authorities decides candidates fate in selection					
	Victimize teachers					
	Assignments to "yes man"					
	Authorities not accessible to the teachers					
	Extending help to teachers					
	Grant leave for studies and research					
	Encourages faculty in doing departmental duties					
	Encourages lecturers to understand point of view of others					

The convergent validity is measured with the help of composite reliability as well as average variance extracted. The discriminant validity is measured with the help of maximum shared variance and average shared variance. The internal consistency reliability is measured with the help of cronbach alpha. The results indicates that the internal consistency of the construct is found to be high (cronbach alpha = .956). The Composite Reliability and Average Variance Extracted of the variables in the construct is found to be 0.956 and 0.647. This ensures that Convergent Validity of the construct exist. Because the Average Variance Extracted statistic is more than Maximum Shared Variance and Average Shared Variance, thus it indicates that the construct is valid w.r.t convergent as well as discriminant validity. Therefore Discriminant Validity of the construct also exists. Satisfaction regarding attitude and behaviour of authorities along with its twelve variables is shown in the figure 6.

The results in table 8 depicts that the Standardised Regression Weights of all the variables is more than 0.7, which indicates that each item of the construct is significantly representing the part of Attitude and Behaviour of Authorities. The Standardised Regression Weights represent the correlation

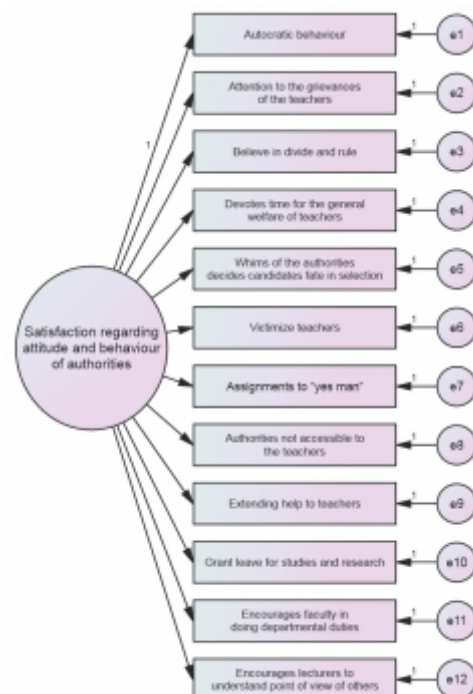


Fig: 6 Attitude & Behavior of Authorities along with its Measured Variables

Table-8: Regression Analysis of Attitude & Behaviour of Authorities

Factor Name	Variables	Standard Beta (β)	Unstandardised Beta	CR	R ²	Fitness Indices	
Satisfaction regarding attitude & behavior of authorities	Autocratic behaviour	.768	1		58.9%	Goodness of Fit	
	Attention to the grievances of the teachers	.837	1.112	18.461	70.0%	CFI	.841
	Believe in divide and rule	.808	1.002	17.678	65.3%	GFI	.694
	Devotes time for the general welfare of teachers	.774	1.026	16.766	59.9%	AGFI	.558
	Whims of the authorities decides candidates fate in selection	.808	1.088	17.671	65.2%	NFI	.831
	Victimize teachers	.866	1.111	19.274	74.9%	CMLN/DF	14.338
	Assignments to “yes man”	.805	1.040	17.590	64.8%	Badness of Fit	
	Authorities not accessible to the teachers	.791	1.099	17.231	62.6%	RMSLEA	.182
	Extending help to teachers	.824	1.020	18.122	68.0%	III 90	.193
	Grant leave for studies and research	.803	1.029	17.554	64.5%	LO 90	.170
	Encourages faculty in doing departmental duties	.786	.998	17.099	61.8%		
	Encourages lecturers to understand point of view of others	.778	1.008	16.871	60.5%		

between the measured variable and the construct. In the results, it is observed that the Standardised Beta of the variable, Victimize teachers, is the highest. This represents that the most influencing variable of the construct is that teachers in the university are victimized, if they criticise the functioning of the administration. It is found in the study that maximum number of teachers have a strong perception that they will have to face lot of harrasment, if they go against their immediate bosses. If the teacher has the perception that he/she would be facing bad politics played by their authorities against them because of raising voice against the authorities actions or functions. This develops a negative feeling among the teachers and affects the level of satisfaction of teachers regarding attitude and behaviour of authorities. If this tendency is removed or reduced from the university, it will increase the level of satisfaction of teachers. It is observed that teachers are interested to work in those universities where they get mental satisfaction and politics free work environment.

The next important variable is found to be Attention to the grievances of the teachers. This indicates that if teachers believes that their university authorities pay immediate attention to their grievances, it creates a harmonious and positive relationship with their authorities, which motivates

the teachers. When the authorities are caring and supportive and focus on teachers problems, then the outcome would be more productive, committed, and highly satisfied teachers.

The fitness of the construct is analyzed with the help of Goodness of Fit indices as well as Badness of Fit Indices as shown in the table. The Goodness of Fit Indices CFI (0.841), GFI (0.694), AGFI (0.558), and NFI (0.831) represent that the construct is statistically fit. Similarly the low values of Badness of Fit Indices represent the statistical fitness of the model.



DISCUSSION

a) To determine whether the items selected represented empirically supported construct of teacher job satisfaction.

Validity is the ability to measure what it is supposed to measure for a construct and the three types of validity such as convergent validity, construct validity and discriminant validity. Reliability is the extent of how reliable is the said measurement model in measuring the intended latent construct. The results of the study (Figure 1) determined that the items selected fully represented the supported construct of teacher job satisfaction. The results of the confirmatory factor

analysis shows that the Attitude and Behavior of Students, Attitude and Behavior of Administrative Staff, Coordination and Cooperation among co-faculty members and Attitude and Behavior of Authorities are the important indicators of the job satisfaction construct.

b) To identify the measured variable within the latent constructs.

The result also reveals that the Standardised Regression Weights (Standardised Beta) of all the variables is more than 0.7, which indicates that each item of the construct is significantly representing a part of the latent constructs.

c) To assess the measurement model validity of the constructs.

Internal reliability has been achieved by calculating the Cronbach Alpha of all the latent constructs and it has been observed that Cronbach's Alpha values were above .60. The convergent validity of all the latent constructs are measured with the help of composite reliability as well as average variance extracted. The discriminant validity is measured with the help of maximum shared variance and average shared variance. The internal consistency reliability is measured with the help of cronbach alpha. The results of the latent constructs indicates that the internal consistency of all the latent constructs are found to be high. The Composite Reliability and Average Variance Extracted of the variables in the construct is found to be greater than 0.7 and 0.5. This ensures

that Convergent Validity of the latent constructs exist. The Average Variance Extracted statistic in all the latest constructs is more than Maximum Shared Variance and Average shared Variance, this ensures that the construct is valid w.r.t discriminant validity. The statistical fitness of the model is also tested by calculating the fitness indices. The result shows that the structural model is statistically fit as the values of goodness of fit indices CFI, GFI and NFI is greater than 0.9 and AGFI is greater than 0.8.



CONCLUSION

The result of the study shows that the Attitude and Behaviour of Students, Attitude and Behaviour of Administrative Staff, Coordination and Cooperation among co-faculty members and Attitude and Behaviour of Authorities are the important indicators of the job satisfaction of university teachers. CFA has been performed for every latent construct in the model. In the data set, latent constructs were Attitude and Behaviour of Students, Attitude and behaviour of Administrative Staff, Coordination and Cooperation among co-faculty members and Attitude and Behaviour of Authorities. To evaluate the fit of the models, goodness-of-fit indices were used. It is observed that the fit indices fitted perfectly the models with approximately all the fit indices being above .90 except for Attitude and Behaviour of Authorities.

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HR

An Exploratory Study of
e  **HRM**
Practices in Educational Institutions

**Dr. Ritu Gandhi Arora*



ABSTRACT

The rapid development in information and communication technology (ICT) has resulted in changes in the working patterns and processes in companies. This has led to greater adoption of Internet based working processes and advanced version of electronic technologies for generating fast and efficient outputs. Organisations are progressively incorporating new technologies such as web based processes and information systems in their various functions. As human resources are one of the major assets of an organisation, they need to be effectively managed. The human resource management practices adopted by the organisation play a vital role in acquiring sustainable competitive advantage and achieving success. HRM works as a catalyst that enhances and bridges the policies and practices of the company with its people (Pearlson, 2009). In today's competitive and dynamic environment, it is crucial for every organisation to transform HRM practices into electronic HRM (e-HRM) for effective management of its people. The main objective of this paper is to study the extent to which various universities and their affiliated colleges are using e HRM practices and are benefited thereof. The study provides some insights into the application and implementation of e HRM in

private or state owned Universities and help HRM practitioners to get better understanding of the uses, benefits and problems in its adoption.

Keywords : e HRM, E-coaching, Competency Management, E learning.

INTRODUCTION

The term e HRM refers to conducting HR activities using the internet or the intranet. It is a web based tool to automate and support HR processes. It can be defined as the application of information technology for networking and supporting at least two individuals or collective actors in their shared performance of HRM activities (Strohmeier, 2007). E HRM can also be explained as a technology that serves both as a medium for connecting spatially segregated actors and as a tool for completing tasks. It supports actors by substituting for them in executing HRM activities to facilitate smooth decision making. E-HRM is defined as interrelated components working together to collect, process, store and disseminated information to support decision making, coordination, control, analysis and utilization of an organisation's human resources management activities (Laudon and Laudon, 1998). The purpose of adopting or implementing e HRM differs according to the demand of the organisation. Largely four types of goals were identified for implementation of e HRM technologies in an organisation (Ruel, et al. 2004): Reduce cost and improving efficiency, Improving client service or facilitating management and employees, improving strategic orientation of HRM, allowing integration of HRM aspects i.e. Content of e-HRM, Implementation of e- HRM, Targeted employees and managers and e-HRM consequences.

The concept has three stages of development: the first stage is automatic processing of the organisation; the second stage of Management Information System (MIS) involves detailed inquiry and report generation flexibility; the third stage is Decision Support System which facilitates decisions at higher levels in the organisation. Hence e-HRM is considered as a systematic producer for collecting, storing, maintaining and recovering data required by the organisations about their human resources' personal activities and organisational characteristics (Kovach et al., 2002).

Any degree-granting institution that is dedicated to research and education is generally considered an academic institution. Such institutions range from primary and secondary schools to post-secondary schools such as colleges and universities, and they are generally populated with a body of faculty who guide students through research and degree acquisition. An academic institution can provide a board education of variety of subjects or be subject-specific and cater to only one field of study. Higher Education sector is one of the major contributors to the GDP of Indian economy. The higher education scenario in India shows that a number of central, state, deemed and private universities are entering into the education sector. The government is also facilitating the growth of this sector by giving various grants and facilities to the researchers and budding entrepreneurs. The focus of the economy towards building human capital has also contributed towards the rise of this sector through the introduction of skill development program. In making higher education sector a success the major role player is faculty involved in higher education. The quality and potential of higher education faculty, influences the quality of workforce available in the future. About 150mn population is in the 18-

23years age group (ESG, MHRD, 2014), showing the level of responsibility on higher education institutions and ultimately on higher education faculty.

Faculty shortages and the inability of the state educational system to attract and retain well-qualified teachers have been posing challenges to quality education for many years. The quality of teaching is also often poor and there are constraints faced in training the faculty as well. Hence the quality of education is deteriorating due to unavailability of trained faculty. Many institutes pay less attention to the basic issue like e-HRM and talk of cutting-edge human strategies. In the absence of appropriate information flow, many faculty related decisions are taken in a subjective and ad-hoc manner. Due to this, institutes not only fail to realize their human potential but also de-motivate their employees with subjective and unsystematic decisions. Now a days, higher education institutions face significant task of improving learning environment at the same time, reducing administrative operating cost. The ability to effectively manage different categories of academicians and non academicians, their recruitment and retention requires full integration of HR data with student information systems. So with so many demands, higher education institutions need a powerful business solution that will help them in managing students (graduates and post graduates both), employment information and financial data. Applications of e-HRM in higher educational institutions provide the utmost updating, use of resources, speed, compatibility, accessibility, data integrity, privacy and security.



LITERATURE REVIEW

It is commonly known that the quality of human resources is the most determinant factor in achieving economic progress, not only because it is one of the four productive resources available in any society, but also because it is the most dynamic one. Thus, the development of human resources has become the most popular approach adopted by many countries of the world economic progress. To maintain a competitive advantage, institutions need to balance the resources available to achieve the desired results. The available resources fall into three categories: physical organisational and human. Poter (1990) stated that the management of the human resources is the most critical of the three. Therefore, HR practitioners were encouraging innovations in their information technology usage (Ball, 2001). So there was a significant growth of HR department and computer technology and advanced to the point where it was beginning to be used. Practically, organisations are hesitating to apply E-HRM unless they are practically convinced of the benefits that it would bring to their organisations (Ngai and Wat, 2006). The purpose of e-HRM is to provide service in the form of accurate timely information to the users. As there are a variety of potential users of HR information, it may be used for strategic, tactical and operational decision making. The most common benefits of e-HRM include better synergies, more independence in terms of accessing information and making modifications to their own data without the assistance of

either the IT or HR professionals, more administrative efficiency in terms of maintaining employees' basic information, payroll and attendance management, and updating company related information such as disciplinary rules, health/safety guidelines, and welfare facilities, enhancement in organisational learning by providing better platform for knowledge sharing also enables an organisation to perform position management (Lederer, 1984; and Ngai and Wat, 2006).

The ability of the firms to harness the potential of e-HRM depends on a variety of factors such as the ability and capability of employees in adopting change (Gautham, Sarkar, 2010). In modern business practice manual work has been replaced by new technical devices and requires an integrated human resource system for the maintaining good employee relations. Although paperwork has not been totally reduced, HR managers can spend more time on administrative tasks. There are many companies that have automated routine HR administrative tasks, especially those in payroll and benefits administration, resulting in a reduction of HR headcount, as well as freeing up of functional resources for attention to more strategic matters (Gore et al., 1996).

Universally, there is no standard e-HRM application as the modules for application are customised to every organisation. The e-HRM applications are able to produce more effective and faster outcomes than manual. Most of the small business houses devote great amount of time in performing clerical employee related tasks (Blog, 2012). The efficiency of E-HRM is measured when the system is able to produce more effective and faster outcomes than the manual system. The research study by Krishnan and Singh (2006) aimed at exploring the issues and barriers faced by sample Indian organisations in implementing and managing e-HRM. The problems which companies were facing- lack of knowledge about e-HRM and lack of importance given to HR departments in the organisations as well as freeing up of functional resources for attention to more strategic matter (Gore et al., 1996) another concern is the level of cooperation which is required across various divisions of an organisation for proper implementation of e-HRM.

Before implementation every system is visualised for its immediate and long-term benefits to the organisation. In assessing the benefits and impact of an e-HRM to an organisation, typical accounting methods do not work. (Ulrich and Smallwood, 2005) There are several intangible or hidden benefits as well of e-HRM (Robert, 1999) like speedy information process, information accuracy, improved planning and program development and enhanced employee communication (Overman, 1992)

According to Ball (2001) and Ngai and Wat (2006), e-HRM supports all human-related activities. Implementation and use of e-HRM is being associated with people management and managing user acceptance of the change associated with the system. The primary reason for delay in e-HRM implementation is "fear psychosis" created by 'technology' and 'IT' in the minds of senior management (Rao, 2009).

Lippert Susan k. (2005) examined that HRIS implementation success may be influenced by increasing the degree of trust an individual places in the technology. As a consequence of this theory development effort, a number of conclusions emerge. Further, Altarawneh (2010) says that organizations face problems in implementing new technologies because of lack of sufficient capital and skill, high cost of setting up and maintaining e-HRM (Beckers and Bsai, 2002), lack of employee support and commitment, lack of HR Knowledge of system designers, lack of application for HR users (Kovach and Chathcart, 1999), lack of qualified HR staff, lack of HR Budget , lack of cooperation with other departments, and lack of information technology support (Institute of Management and Administration, 2002).

Problem Statement:

Technical education in India contributes a major share to the overall education system and plays a vital role in the social and economic development of our nation. In India, technical education is imparted at various levels such as: craftsmanship, diploma, degree, post-graduate and research in specialized fields, catering to various aspects of technological development and economic progress. For the proper regulation of Academic institutions, All India Council for Technical Education (AICTE) was set-up in November 1945 as a national level Apex Advisory Body to conduct survey on the facilities on technical education and to promote development in the country in a coordinated and integrated manner. And to ensure the same, as stipulated in, the National Policy of Education (1986), AICTE be vested with statutory authority for planning, formulation and maintenance of norms and standards, quality assurance through accreditation, funding in priority areas, monitoring and evaluation, maintaining parity of certification and awards and ensuring coordinated and integrated development and management of technical education in the country but subsequent to recognition, monitoring was not very satisfactory (Prasad, 2011). It resulted in a number of private institutions defaulting in the quality education system. AICTE's main mission was transparent governance and accountable approach towards the society, planned and coordinated development of technical education in the country by ensuring world-class standards of institutions through accreditation. But because of lenient attitude of this authority, many institutes have become teaching shops and reasons other than merit have started ruling the rest. This growing competition especially in the field of professional education, quality of delivery lies in the efficiency and effectiveness of the staff. e-HRM enables universities to format the profile of their staff to identify the strengths and weaknesses. This provides an opportunity to organise various staff developmental activities (Rawat, 2008) at district, state and national level. In the metropolitan cities, most of the colleges are affiliated and the faculty of those colleges is recruited by the expert committee constituted by the adequate university authorities, so that the right people can be placed at the right time.

Objectives:

In relation to the problem statement followings are the objectives of the study:

- To explore the issues surrounding the uses, benefits and barriers of e-HRM practices in academic institutions.
- To examine the extent to which universities and affiliated colleges have adopted e-HRM practices.
- To examine statistically whether or not e-HRM benefits and barriers vary among the universities.

Hypotheses

Based on the above objectives, the following hypotheses were formulated:

- There is no significant variation in the perception of the respondent regarding the e-HRM application.
- There is no significant variation in the perception of the respondent regarding the benefits achievable through the adoption of e-HRM.
- There is no significant variation in the perception of the respondent regarding the barriers for the adoption of e-HRM.



RESEARCH METHODOLOGY

In NCR, there are number of management and technical institutes imparting professional graduates and postgraduate courses like B.A, B.Com, BBA, MBA, MCA, B.Tech., M.Tech etc.

In spite of the fact that Faridabad is the technology hub, most of the engineering and MBA colleges have a number of seats lying vacant (www.aicte.ernet.in). Data was collected from five private universities located in Delhi and NCR. Out of the selected universities one university is ranked number one university has a number one ranking in category of private universities (India Today Survey 2015) and another is ranked one private university in placements (India education.net, 2015). Sample population includes principals, administrators, office bearers, departmental heads and faculty members of these universities.

For data collection purpose a self-administered structured questionnaire was prepared using Five point Likert scale. The reliability of the questions was tested using Cronbach's alpha test and test results of the statements (15) related to application of e-HRM is 0.953, clearly indicating that the questions were highly reliable, followed by adoption of e-HRM Cronbach's alpha for 11 questions has a value of 0.963, and finally for 10 questions related to barriers of e-HRM is 0.896. Based on the respondents' suggestions, a modified questionnaire was prepared and distributed. Sample size was restricted to 100 respondents 80 were returned, with an effective response rate of 80%.

Data Analysis and Interpretation:

Demographic Analysis:

Out of the 80 respondents, 75% use computer on daily basis at work. Interestingly, 35% of them are master's degree holders, 25% have doctorate degree in their respective fields, 20% have bachelor's degree and 10% are diploma holders. In respect to experience, 45% of the respondents have less than 5 years of experience, 25% respondents having 10-15 years of experience, 15% have 16-20 years of experience, 10% of the respondents have between 5-10 years of experience and rest 5% have more than 20 years of experience.

Table 1: Profile of the Participants

			Frequency	Percentage
1.	Computer Usage for HR related activities	Yes	60	75
		No	20	25
		Total	80	100
2.	Qualification	Matric	8	10
		Graduation	16	20
		Post Graduation	28	35
		Doctorate	20	25
		Diploma Holders	8	10
		Total	80	100
3.	Total Experience	Less than 5 years	36	45
		5-10 years	8	10
		10-15years	20	25
		16-20 years	12	15
		More Than 20 Years	4	5
		Total	80	100
4.	Separate HR Department	Yes	52	65
		No	25	35
		Total	80	100

65% of the respondents reported that they have separate HR department, and 35% of respondents reported that they do not have separate HR department.

Descriptive Analysis:

e-HRM as become integral part of universities' HRM processes. They provide faculty with a process for evaluating, motivating and managing performance outcomes at one or multiple levels (individual, group and organisational). The e appraisal system refers to the monitoring of faculty in the institute using technologically mediated systems and devices, and involves the tracking of many aspects of faulty job through telephone calls, performance metrics, and screen sharing capability and video camera observations. Compensation systems are integrated with some other HR or non HR systems within the institute. A salary head need to track up to date attendance information or performance review to make

corresponding changes in the compensation. Effective faculty tend to have good coaching and mentoring skills as they try to bring out the best from their students. Through coaching and mentoring, faculty educate, guide, counsel and train their students to enable them to perform effectively and groom them for future growth as well. Similar to the traditional mentoring system, e coaching is the mentoring and supervision of the faculty by mentors with the use of web enabled programmes and devices.

Table 2 indicates the major functions performed through e-HRM applications by various academic institutions. It is clearly indicated in the following table that e-HRM performs various functions in universities.

Table 2: Components/Functions Performed through HRIS

S. No.	Activity	N	Mean	Standard Deviation
1.	Salary Calculation	80	2.5	1.23
2.	Reward Management	80	2.7	0.98
3.	Performance Management	80	2.7	0.92
4.	Job analysis and Evaluation	80	3.05	0.88
5.	Manpower Planning	80	2.7	0.92
6.	Employee Hiring and Staffing	80	3.05	0.88
7.	Succession and Career Planning	80	2.8	1.05
8.	e- Training and e Learning	80	2.95	0.94
9.	Disciplinary Procedure	80	3.1	0.98
10.	Leave Record Maintenance	80	3.1	0.93
11.	Absence Monitoring	80	3.2	0.96
12.	e- Coaching	80	3.2	0.89
13.	Maintenance of skill inventory	80	3.2	0.83

e HRM is used for managing salaries, reward management, performance management, job analysis and evaluation, for planning manpower, hiring and staffing, maintaining discipline, leave record, skill inventory and e coaching (Mean values varies from 2.5 to 3.2 for these activities). Most of the universities applies e HRM practices for monitoring absence, imparting coaching to students and for maintaining skill inventory (\bar{x} = 3.2) followed by its practice in maintaining leave records, tracking disciplinary procedures (\bar{x} = 3.1) and employee hiring/staffing, Job Analysis and evaluation (\bar{x} =

3.05). Very less number of universities are using e HRM for reward and compensation management purpose (\bar{x} = 2.5).

Benefits of e-HRM adoption to Educational Institutions:

Table 3 indicates that after adopting, e-HRM, various HR processes of educational institutions have streamlined (\bar{x} = 3.70) also employment systems have also improved (\bar{x} = 3.65). However, they indicated moderate improvement in data control and accuracy, helpful in making decisions and reduction in data entry and its re usage (\bar{x} = 3.55).

Table 3: Benefits of e-HRM Adoption

S. No.	Benefits	N	Mean	Standard Deviation
1	System Standardisation	80	3.30	1.41
2	Reduction in paperwork	80	3.35	1.34
3	Less Manpower requirement	80	3.45	1.23
4	Reduction in Errors	80	3.45	1.46
5	Fast access to Information	80	3.45	1.47
6	Helps in Data accuracy or Control	80	3.55	1.46
7	Reduces Data Re-entry and its re usability	80	3.55	1.43
8	Helps in making quick decisions	80	3.55	1.50
9	Improves HR Services	80	3.65	1.26
10	Helps in Formalisation of HR Process	80	3.70	1.12

Barriers in e-HRM Adoption:

Following table (Table 4) indicates the various problems educational institutes' faces while adopting e-HRM practices. Mean scores and standard deviation are calculated for each barrier. Table 4 clearly depicts that the major barrier in adopting the e-HRM services is employee generated i.e. employees' shows lack of commitment and involvement (\bar{x} = 4.10) towards its adoption. They feel that if they will adopt the same and start working on it they may lose their job as e-HRM adoption will replace them over a period of time as well as their work will get noticed. Also, lack of their expertise in computers, Financial as well as top management support further lower down their morale level in adopting the e-HRM practices. It is clearly indicated by the mean score variation from \bar{x} = 2.85 to \bar{x} = 2.40.

Table 4: Barriers in adopting e-HRM practices

S. No.	Barriers	N	Mean	Standard Deviation
1	Difficulty in Changing Organisation Culture	80	2.40	1.41
2	Difficulty in converting entire manual documentation in computerised form.	80	2.40	1.27
3	Lack of knowledge of e-HRM implementation	80	2.40	1.27
4	Lack of expertise in computers	80	2.45	0.99
5	Lack of awareness on benefits of e-HRM implementation	80	2.50	1.27
6	Insufficient Financial Support	80	2.55	1.43
7	Lack of support from the top management	80	2.70	1.34
8	Fear of losing the job as well of get noticed	80	2.70	1.30
9	Non availability of suitable software	80	2.85	1.22
10	Lack of commitment and involvement	80	4.10	6.90

Perceived benefits and barriers of IT applications among the staff of university affiliated colleges:

One of the study objectives was to access the differences among the staff of various university-affiliated colleges in terms of perceived IT applications, benefits and barriers. To assess the differences based on college size, ANOVA test was applied to compare the means also to determine if there were any significant differences among various affiliated colleges.

Table 5 indicates that there were no significant differences among the perceived benefits and barriers in terms of IT applications except in HR planning (0.002) and transfer of the staff (0.046).

The main purpose of the study was to explore the extent to which the staff of the university-affiliated colleges has adopted e-HRM practices and to examine the current application of e-HRM practices, its benefits and barriers. The results shown in Table 1 indicates that majority of colleges have employees having less than five years of experience. This could be explained by the fact that in NCR, Noida and Faridabad is an education hub. A majority of the participants also indicated that they have separate HR department performing various roles, activities and functions, as it is expected that as the organisations become larger the functions of HR departments

should also become more complex.

Table 5: Perceived differences among the benefits and barriers in terms of IT applications

S. No.	Activity	f-value	Sig. Value
1	Record Maintenance	2.034	1.161
2	No Monitoring Required	3.314	0.401
3	Compensation Administration	3.314	0.061
4	Maintenance of Leave Record	1.250	0.312
6	Job and Role Analysis	0.670	0.525
7	Career Planning	2.474	0.119
8	Staffing	3.360	0.059
9	Manpower Planning	9.025	0.002*
10	Employee Transfers	3.706	0.046*
11	Performance Appraisal	3.566	0.051
12	Training and Development	2.091	0.154
14	HR Job Budgets	2.620	0.102
15	Employee Reward Planning	1.857	0.186

**Indicates significant at 0.05 level*

Significantly, a majority of the participants indicated that e-HRM applications were adopted for general information, and for monitoring absenteeism and payments. As also indicated by the previous studies, e-HRM is applied for the computerisation of different HR activities rather than for supporting decisions (Kovach and Cathcart (1999); Ball, (2001); Delorme and Archand (2010). The findings from Table 2 pertaining to its application highlight the fact that a majority of the universities and affiliated colleges use e-HRM for some simple routine administrative help in saving cost and increasing competitiveness. Ball (2001) and N Gai and Wat (2006) also mentioned that e-HRM should not only be designed for automation of but also for providing strategic advantages to organisations. Based on the results from Table 5, the major benefits were standardizing the programs and controlling different HR functions were perceived as less important benefits of e-HRM implementation. However, it is important to mention that perceived e-HRM benefits reflect the respondent's personal opinions or not the actual achievement benefits of e-HRM in their colleges.

Table 4 depicts that the main barriers in the implementation of e-HRM were: difficulty in changing the organisational culture, more paperwork which is difficult to computerise, and inadequate computer knowledge. This could be explained by the fact that most of the affiliated colleges under different have their own work culture, systems, principles and policies and it is difficult to change them immediately also they have so many

constraints. Top management support is also one of the most important factors for implementation of e-HRM (Kovach and Cathcart, 1999). A complete implementation of e-HRM requires a sizable budget also until and unless the top management understand the benefits it brings to an organisation, they will not be willing to allocate valuable resources (N.Gai and Wat. 2006).



CONCLUSION

Based on the research findings it can be concluded e-HRM is very useful to the administrators for planning and implementing e-HRM where extensive attention needs to be given to the applications of e-HRM. The HR Department of an organisation should play a proactive role in supporting e-HRM implementation in the organisation also need to be convinced by the strategic benefits of e-HRM.

As far as India is concerned, due to shortage of high quality trained manpower the professional education system has a long way to go. Academically, the present study has important implications. This study provides more insights into the implementation of e-HRM by universities and their affiliated colleges, which should help the HR department acquire better understanding of the e-HRM applications, benefits and barriers. In nutshell, in a globalised world, to face the new challenges and competition it is necessary to adopt e-HRM. To maintain transparency in all areas in relation to staff, students, and administration it is necessary for college and universities to adopt e-HRM so that all academic activities can be streamlined.

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“Dynamism of FII flows and Expected Volatility in Indian Stock Markets: An Empirical Analysis”

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ABSTRACT

This study is aimed at exploring the inter-relationships of Foreign Institutional Investor (FII) flows and option implied Volatility Index (VIX). Studies on the FII flows and realized volatility provide a ground work for this research. Covering over 7 years' time period, this paper establishes the importance of VIX i.e. expected volatility in explaining the FII flows into the Indian stock market. Very strong evidence has been proposed by the Granger Causality test which confirms the uni-directional flow of causality from option implied volatility to FII investments into Indian markets. VAR model developed in the study has high explanatory power in explaining VIX but not the FII flows.

Keywords : FIIs, Granger Causality, Illiquidity, Stock Market, VIX, Volatility

INTRODUCTION

With the Indian economy portraying all the healthy signs of long term growth, there seems nothing in the visibility to seize the opportunity from India from attracting investments and becoming the most preferred investment destination for FIIs worldwide. It is fairly visible that interest rates are up for a downward trend and this would further attract flows from FIIs. For the financial years 2017 and 2018, expectations for the growth rate of the Nifty-50 companies' net profits are 14.4% and 20.7% respectively which can be attributed to high profits in several sectors and overall economic reclamation. Indian markets have so far been witnessing consistent participation of FIIs which is only expected to increase with the support of the government.

India's solar energy projects and plans have been committed US\$ 1 billion by the World Bank Group to work with other multilateral development banks and financial institutions in order to develop financing instruments to support future solar energy development in the country. Also, the Government has signed a US\$ 100 million loan agreement with the Asian Development Bank, which will be used to support irrigation and drainage systems thereby improving water management in Tamil Nadu. Many more investment plans are ready to be effected aiding in fetching foreign money.

For providing relief to foreign portfolio investors (FPIs), Minimum Alternate Tax has been abolished with retrospective effect for the period prior to April 2015. Foreign Portfolio Investors can now invest in Real Estate Investment Trusts (REITs), infrastructure investment trusts (InvITs) and Category III Alternative Investment Funds (AIFs) as per the latest guidelines of SEBI.

Figure 1.1 represents the Annual Net FII investments into Indian equity market for the last seven years from April 2009 to March 2016. Despite a choppy 2015-16 when global markets observed a bear phase on account of China's growth woes and falling crude oil prices thereby pushing out FIIs from Indian markets, the year 2016 saw strong FII flows till August 2016 at an astounding Rs. 38,464 crore.

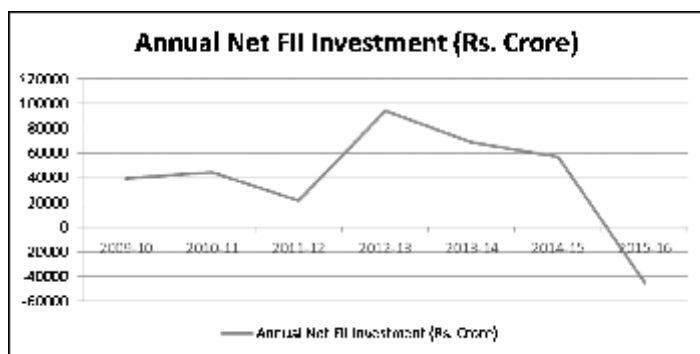


Figure 1.1: Annual Net FII Investments (2009-2016)

Such dynamics of the FII inflows and outflows over a period of time have huge impact on the movements of the stock markets. Numerous other domestic as well as international factors are also engaged in creating bulls and bears in the

markets which in turn can lead to market volatility. Volatility is a term for the fluctuations or changes in the stock values from their mean values. Since the variations in security values bring about deviations in the returns, it is so very essential to measure such dispersion and attribute a value to it. Volatility Index (VIX) as a measure of market expectations offers a solution. In a highly volatile market, it suddenly moves up or down and hence, during this time, value of the volatility index rises and vice versa. Volatility Index measures the dispersion or variance and is calculated using the order book of the underlying index options; denoted as an annualized percentage. NSE started real time dissemination of India VIX which is a step towards introduction of India VIX derivatives. India VIX futures and India VIX options can be used to hedge the risk of market volatility.

The present study is an endeavor to investigate the relationships between expected volatility and flows of FIIs into the Indian equity market while also pondering over exchange rate and Nifty returns over a seven years' time period.



LITERATURE REVIEW

Paramita Mukherjee et al. (2002) studied the relationship between FII flows to Indian equity market and other variables i.e. market returns, volatility, exchange rate, short term interest rates and IIP. The results show that returns in Indian equity market cause FII sale and net inflows but not the FII purchases. Global investors are not investing in Indian equities for diversification purpose. Daily FII flows are found to be auto-correlated and this auto-correlation could not be accounted for by all the other variables considered in the study.

Dipankor Coondoo, Paramita Mukherjee (2004) examined the volatility of the FII in India in terms of strength, duration and persistence. Volatility of the stock market returns was found to be similar to that of the FII flows. Strength of volatility of FII flows was highly correlated both with that of stock market returns and call money rate.

Tanupa Chakraborty (2007) performed a cause and effect relationship study on daily data set of FIIs and Indian equity market returns from April 1997 to March 2005. The study revealed that FII flows are more an effect than a cause of stock market returns in India. This proves the return-chasing behavior of foreign investors thereby supporting the theory of cumulative informational disadvantage of foreign investors in comparison to domestic investors.

Swami P. Saxena, Sonam Bhadauriya (2011) explored the causal relationship between FIIs and stock market returns over the period 2003 to 2010. The data was analyzed using STATA IC 10 software with Granger Causality Test and VAR framework applied on the FII and the Nifty index series. Only uni-directional causal relationship was observed and it was suggested that past data of stock market returns can predict the present and future trends of FII inflows into Indian stock markets.

Bashir Ahmad Joo, Zahoor Ahmad Mir(2014) examined the effect of FII movements on Indian stock market volatility analyzing the monthly data of FII, Nifty and Sensex from January, 1999 to December, 2013. Volatility measures like standard deviation, correlation and GARCH model were used to evaluate the variables. Results revealed that there is positive correlation between the series and FIIs significantly affecting the volatility of Nifty and Sensex.

Rakesh Kumar, Sarita Gautam(2014) established the inverse relationship between FII investments and BSE Sensex returns for the time period April 2014 to June 2014. Further they found strong influence of FTSE 100, NIKKEI 225 and NASDAQ 100 indices on Indian stock market.

Devdatt. J. Vyas, Manoj. D. Shah(2015)studied the correlation between FIIs and BSE Sensex for the time period 2005 to 2015 and concluded that Sensex was not solely affected by FIIs; other variables may be significantly contributing to its fluctuations. FIIs contribute considerably to the efficiency of all the stock markets around the world.

Suddhasanta De, Tanupa Chakrabarty (2016) explained the relationship between FII flows into Indian equity markets and the option implied volatility index over the time period 2009 to 2013. Multi variate analysis tools were used and results suggested flow of causality from FII flows to volatility index. FII flows affect the investors' perception about the future volatility.



DATA & METHODOLOGY

Variables used in the research were India VIX (Implied Volatility Index), FII Net purchases in equity markets, Exchange rate of USD to INR and Nifty returns. Data for all the variables has

been taken on daily basis for the time period April 2009 to March 2016.

India VIX is an index of measurement of expectation of volatility of stock options traded at NSE. As the calculation of the VIX started from April 2009, time period for the study has been selected accordingly and data. The data for FII Net purchases in equity has been taken as reported on the trading day by the brokers in the trading system.

Exchange rate of USD to INR has been used as a parameter affecting FII flows and stock market volatility. The data for the exchange rate has been compiled from International Monetary Fund website.

NIFTY returns are an important constituent of any model explaining the relationships of FII flows and financial markets volatility and the same has been measured by computing the daily returns of the index.

Illiquidity, as explained by Amihud(2002) is a measure for computing illiquidity by providing a model that explains the liquidity of any security with reference to its turnover over a specified period of time.

Amihud's measure of Illiquidity used in the study:

$$ILLIQ_{pt} = \frac{1}{N_{pt}} \sum_{i=1}^{N_{pt}} \frac{|R_{pdt}|}{V_{pdt}}$$

In this measure, ILLIQ_{pt} is Amihud's illiquidity for stock p for the quarter t; R_{pdt} and V_{pdt} are the daily NIFTY returns & the total trade value of the NIFTY at the end of the day respectively and N_{pt} is the observed number of days in quarter t of stock p.

Augmented Dickey Fuller Test has been applied on all the data series to test the stationarity using the equation stated in the model below:

$$\Delta Y_t = \alpha_0 + \gamma_1 Y_{t-1} + \sum_{i=1}^m \beta_i \Delta Y_{t-i} + \epsilon_t$$

For this purpose, the null hypothesis of a single root is tested against the alternative of stationarity. The solution is to take the first differences of the time series because if a time series has a unit root, the first differences of such time series are stationary. The series being examined here have been tested using ADF test.

Further, Granger Causality Test has been applied on the series to examine the causal relationship and the direction of causality between the variables. A time series is assumed to Granger Cause another series if the historical values of the former contribute to the prediction of the latter series. However, it does not imply that variations in one variable cause fluctuations in another.

The dynamic behaviour of financial time series can be described and forecasted using the VAR (Vector Auto regression) model, an extension of the univariate autoregressive model. For estimation of the VAR model, symmetric lags need to be selected for all the variables in the model using statistical criterion such as AIC or SIC.

Making use of SIC and AIC for optimum lag length selection, time series of USD to INR has been taken at first difference as it has a unit root. All other series have been found to be stationary at level.

The regression model used is as follows:

$$NIFTY_t = \alpha_0 + \sum_{i=1}^m \beta_1 NIFTY_{t-i} + \sum_{i=1}^m \beta_2 FII_{t-i} + \sum_{i=1}^m \beta_3 RET_{t-i} + \sum_{i=1}^m \beta_4 ILLIQ_{t-i} + \sum_{i=1}^m \beta_5 USD_{t-i} + \epsilon_t$$

$$FII_{t-i} = \alpha_1 + \sum_{i=1}^m \beta_1 FII_{t-i} + \sum_{i=1}^m \beta_2 NIFTY_{t-i} + \sum_{i=1}^m \beta_3 RET_{t-i} + \sum_{i=1}^m \beta_4 ILLIQ_{t-i} + \sum_{i=1}^m \beta_5 USD_{t-i} + \epsilon_t$$

Both the equations contain m lag values of all the variables.



ANALYSIS AND RESULTS

Descriptive Statistics

Table 1 represents the main features of the data series analyzed over the time period of our study. Distribution is positively skewed as analyzed from the results of the data. High Kurtosis values of all the data series except USD_INR indicate that they have flattened distribution representing extreme values on the tails. Jarque-Bera statistic for all the series are high representing that all series are not

normally distributed.

Table 1: Descriptive Statistics(April 2009 to March 2016)

	FII	ILLIQ	RET	USD_INR	VIX
Mean	177.30160	0.00000	0.01100	54.54633	21.68502
Median	158.23000	0.00000	0.02121	54.29075	19.79375
Maximum	17488.73000	0.00001	17.74407	60.77750	56.07000
Minimum	-5275.40000	0.00000	-5.91510	43.95000	11.56500
Std. Dev.	978.05190	0.00000	1.25488	7.60455	7.31643
Skewness	4.34475	4.89198	1.76473	0.13880	1.69019
Kurtosis	71.62688	25.02097	28.68567	1.55182	6.55612
Jarque-Bera	314225.40000	38155.31000	44141.85000	142.77790	1580.78900
Observations	1576	1576	1576	1576	1576

Augmented Dickey Fuller (ADF) Test

All the data series i.e. FII, ILLIQ, RET and VIX are stationary at level whereas USD_INR is stationary at first difference. In accordance, for further analysis, data series USD_INR is taken at first difference and rest of the variables are taken at level. ADF test results are represented in Table 2.

Table 2: Augmented Dickey Fuller Test

	t- statistic	Probability
FII	-13.11237	0.0000
ILLIQ	5.100699	0.0000
RET	-37.28915	0.0000
USD	-0.138199	0.9434
D(USD)	-18.35866	0.0000
VIX	-3.906984	0.0020

Granger Causality Test

This test is performed to explore the short-run dynamic causal relationship between the data series. While examining the causality from independent variables to FII, it has been observed that USD_INR granger causes FII flows, Return granger causes FII flows, VIX granger causes FII flows but Illiquidity does not granger cause FII flows.

Table 3: Granger Causality Test

<i>Dependent Variable: FII</i>		
	F- Value	P- Value
USD	4.40037	0.0006
RET	21.0098	0.0000
VIX	5.17607	0.0001
ILLIQ	0.88207	0.4922
<i>Dependent Variable: VIX</i>		
	F- Value	P- Value
FII	0.45816	0.8075
ILLIQ	9.44555	0.0000
RET	3.3366	0.0053
USD	2.33134	0.0403

Optimum Lag length selection

While determining the optimal lag length for FII, both AIC and SC are considered and as per the results in table 4, lag length 5 is selected for FII equation. For the VIX equation also, lag 5 is selected as per the minimum value of Akaike Information

Table 4: Determination of Optimal Lag Length

Optimum Lag length selection		
<i>Dependent Variable: FII</i>		
	Akaike Information Criterion	Schwarz Information Criterion
Lag 1	-22.10332	-22.03408
Lag 2	-22.11181	-21.98881
Lag 3	22.17884	22.00117
Lag 4	-22.17614	-21.94379
Lag 5	-22.18114*	-21.99413
<i>Dependent Variable: VIX</i>		
	Akaike Information Criterion	Schwarz Information Criterion
Lag 1	-8.881422	-8.816086
Lag 2	-8.943847	-8.820842*
Lag 3	8.971677	8.794003
Lag 4	-8.976169	-8.743826
Lag 5	8.978073*	8.691061

Criterion.

Vector Auto Regression:

From the results of the VAR model describing India VIX, it is evidenced that the Indian VIX is positively related to its own

Table 5: Vector Auto regression Estimates

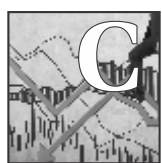
Table 5.1: Vector Auto regression Estimates (Dependent Variable: FII)			
	Coefficients	Standard Error	t- statistic
FII(-1)	0.1256	-0.0274	4.5863
FII(-2)	0.1547	-0.0274	5.6401
FII (-3)	0.0765	-0.0276	2.7693
FII (-4)	0.0894	-0.0272	3.2867
FII(-5)	0.0607	-0.0261	2.3215
ILLIQ(-1)	-1796404	-160000000	-0.0293
ILLIQ(-2)	365000000	-230000000	1.5906
ILLIQ(-3)	-396000000	-240000000	-1.6863
ILLIQ(-4)	207000000	-240000000	0.8692
ILLIQ(-5)	-167000000	-170000000	-0.9863
D(USD(-1))	-123.5767	-80.1207	-1.54238
D(USD(-2))	8.873389	-107.697	0.08239
D(USD(-3))	-9.103851	-107.321	-0.08483
D(USD(-4))	-11.04228	-107.356	-0.10206
D(USD(-5))	132.5072	-80.0780	1.65471
RET(-1)	186.5051	-22.2696	8.37487
RET(-2)	-5.642509	-23.3802	-0.24134
RET(-3)	22.97353	-22.8644	1.00477
RET(-4)	-17.97561	-22.629	-0.79136
RET(-5)	-13.15802	-19.7566	-0.666
VIX(-1)	-4.026331	-19.7773	-0.20358
VIX(-2)	-15.57009	-28.3088	-0.55001
VIX(-3)	29.06749	-28.0817	1.0351
VIX(-4)	6.669225	-27.4204	0.24322
VIX(-5)	-20.08836	-19.1681	-1.04801
C value		300.4587	
R squared		0.224712	
Adjusted R square		0.212167	

Table 5.2: Vector Autoregression Estimates (Dependent Variable: VIX)

	Coefficients	Standard Error	t- statistic
VIX(-1)	1.00335	-0.02968	33.80160
VIX(-2)	-0.06753	-0.04248	-1.58945
VIX(-3)	0.00571	-0.04214	0.13542
VIX(-4)	-0.02954	-0.04115	-0.71783
VIX(-5)	0.05128	-0.02877	1.78267
ILLIQ(-1)	-585991.7	-245416	-2.38775
ILLIQ(-2)	1849827	-343992	5.37754
ILLIQ(-3)	-804439.1	-352703	-2.28078
ILLIQ(-4)	-594252.2	-357955	-1.66013
ILLIQ(-5)	278558.9	-251929	1.10571
D(USD(-1))	0.01134	-0.12024	0.09428
D(USD(-2))	-0.11349	-0.16163	-0.70216
D(USD(-3))	0.38202	-0.16106	2.37192
D(USD(-4))	-0.19317	-0.16111	-1.19899
D(USD(-5))	-0.09743	-0.12018	-0.81068
RET(-1)	0.13019	-0.03342	3.89534
RET(-2)	0.00293	-0.03509	0.08358
RET(-3)	-0.02622	-0.03431	-0.76412
RET(-4)	0.00473	-0.03396	0.13932
RET(-5)	0.01459	-0.02965	0.49214
FII(-1)	-0.00004	-0.00004	-0.90309
FII(-2)	-0.00001	-0.00004	-0.15417
FII(-3)	0.00008	-0.00004	1.89781
FII(-4)	-0.00004	-0.00004	-1.09781
FII(-5)	-0.00001	-0.00004	-0.33774
C value		1.295604	
R squared		0.967983	
Adjusted R square		0.967464	

first lag, negatively related to second lag of its own, positively related to its third lag, negatively to fourth and positively to fifth. Estimates clearly show that Indian VIX is positively related to third lag of FII, first, second, fourth & fifth lag of Return, first and third lag of USD_INR and second & fifth lag of illiquidity. It is negatively related to first, second, fourth & fifth lag of FII, third lag of Return, second, fourth & fifth lag of USD_INR and first, third & fourth lag of illiquidity.

The model has high explanatory power in explaining the Indian VIX as the value of adjusted R square is 0.967464 (approx. 1) as represented in Table 5.2. VAR model describing the FII does not have high R squared value (0.212167) hence it does not significantly explain the FII flows.



CONCLUSION

A plethora of studies is available signifying the multi directional relationships between stock market returns, FII investment patterns, exchange rates, volatility of indices and so on.

But only a handful of literature has been presented on the

expected volatility and its relationship with FII investments in a country. This paper is an attempt to explore the same with reference to the Indian stock market.

The present study indicates that VIX is an imperative constituent in explaining the current FII flows into the Indian stock markets. However, the reverse i.e. the direction of causality from FII flows to the expected volatility of the markets does not hold true. This is contrary to the common perception that the increased FII participation in equity markets could lead to considerable volatility in markets.

Strong linkages between explanatory variables: USD exchange rate, Nifty returns, Illiquidity and dependent variables: expected volatility & FII flows have been found. While explaining the FII patterns in Indian markets, USD exchange rate has been found to be a vital component of the model; stock market returns adding further weights to the effect. Applying the VAR model on the FII flows and the Indian VIX, results present that the model significantly explains the Indian VIX but not the FII flows.

Principally, on the basis of the results, this study infers that: (1) FII flows into the Indian market tend to be caused by expected volatility and not the other way round; (2) exchange rate of USD/INR is a significant factor that impacts FII flows into the country; (3) returns in the Indian stock market is also a contributing factor in influencing the FII flows, and finally, (4) exchange rate of USD/INR also affects the expected volatility.

These findings suggest that foreign institutional investments (FIIs) affect the economy of a country through its effect on the factors such as exchange rates and foreign exchange reserves. Similarly, exchange rate movements are also understood to affect the FII inflows into the country. Performance of stock markets is affected by exchange rate movements though the magnitude of impact varies from one country to another. On a micro level, a change in the exchange rates would affect a firm's profits & overseas operations in turn affecting its stock prices and on a broader level, all such variations in stock prices lead to increased volatility of the stock markets.

Globally, derivative products are being offered based on the volatility indices and they provide a mechanism to hedge against volatility. In India also, NSE now offers NVIX, futures on India VIX and a lot lies ahead to be explored in continuance of the present study.

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THE KEY CHARACTERISTICS OF NECESSITY: COMPARISON BETWEEN STUDENTS AND EMPLOYEES DATA

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ABSTRACT

Three different types of employees can be found in workplaces all over the world: “Necessities,” “Commoners,” and “Parasites.” A person is a Necessity if he/she is irreplaceable and crucial to the functioning of an organization. A Commoner is a person of normal ability and talent who has no significant impact on organizational success. Parasites are detrimental freeloaders who damage the functioning of an organization. To identify the principal characteristics of these three types of workers, a group of researchers led by Chong W. Kim conducted six studies in which they collected survey data from undergraduate and graduate business students in the U.S., India, Korea, Chile, and Japan. The summary of six published studies is reported in Kim, Smith, Sikula and Anderson (2011). The purpose of this article is to compare the results of these studies with newly collected data from working employees in order to identify the key trait differences of Necessity between students and working people's perception. The authors note the points of commonality and difference between these data sets and offer their thoughts on future research in this area.

Key Terms: *Employee traits, necessity, commoner, parasite*

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INTRODUCTION

Human beings, by nature, are relational creatures. At any given time all people, regardless of their individual differences (e.g., age, gender, religion, ethnic background), assume multiple roles in society, such as spouse, parent, employee, friend, club member, and citizen of a city, town, or country. Within each of these roles, there is always more than one person involved, from a very small number of members in an institution like a family, to a very large number of members comprising the citizenship of a nation. No matter what type of role a person plays in a group at any given time, however, that person falls into one of three categories: Necessity, Commoner, or Parasite.

The most desirable type of person is the Necessity. The person of Necessity focuses his/her efforts on achieving the group's goals, and thus consistently makes valuable contributions to ensure collective success. From the group's perspective, such a person is an invaluable asset. Indeed, without members who are Necessities, the group as a whole cannot function successfully. The loss felt within the group by the departure of such an individual, therefore, is significant. Necessities provide the social "glue" that holds an organization together and enables it to function and thrive as a cohesive whole (Kim, Smith, Sikula & Anderson, 2011).

Commoners have no significant impact on the success of the group. They do not contribute much to the accomplishment of group goals, but neither do they harm the overall group performance in any significant way. A Commoner is not a self-starter and tends to focus on "just getting by." They are easily replaceable and not missed much when they leave (Kim, Smith, Sikula & Anderson, 2011).

The third and least productive type of person is the Parasite. This individual not only fails to contribute to group performance, but also harms the organization by acting as a leech and a drain on others. The Parasite is a loafer who desires a free ride, complains about everything, blames mistakes on others, and exudes pessimism in the workplace. Many group members wish the Parasite would leave as soon as possible, since the organization would be better off not having such a person around (Kim, Smith, Sikula & Anderson, 2011).

Workplace settings can vary in many different ways. The traits and behaviors that characterize Necessities, Commoners, and Parasites, for example, may depend on the workers' occupations, assigned tasks, and positions in the organizational hierarchy. The structure of the organization itself also determines, in part, what traits and behaviors characterize each category of worker. More broadly, cultural attitudes towards age, gender, religion, or ethnic background, along with societal views on the nature of work and success, will also matter.

The summary of six studies reported in Kim, Smith, Sikula and Anderson (2011) was drawn upon our previous research (Kim, Arias-Bolzmann & Magoshi, 2009; Kim, Arias-Bolzmann & Smith, 2008; Kim, Cho & Sikula, 2007; Kim & Sikula, 2005; Kim & Sikula, 2006; Kim, Sikula & Smith, 2006) which made use of eight sets of survey data (three from the U.S., two from Chile, and one each from India, Korea and Japan). We recognized the

difficulty of this undertaking, for the respondents in these data sets operated in different types of workplaces and, more generally, in different socio-cultural environments.

People's perceptions of the traits and behaviors that characterize each of these three categories of workers may also vary across cultures. Human beings are by nature socio-cultural creatures. Their behaviors are influenced by the norms and values of the society to which they belong, and they act in a manner to suit the nature of their traditional cultures. For example, education and training received in childhood can create differences in personalities and cultural values, which in turn can make people perceive education and training differently (Newcomb, 1950). Hofstede (1980) focuses on the differences culture can make in a workplace setting. For example, Americans have a high degree of individualism and a short-term orientation, whereas Japanese score high on collectivism and on having a long-term perspective. Perceptions of the characteristics of Necessities, Commoners, and Parasites should therefore differ across U.S. and Japanese workplaces. More generally, we recognized that cultural differences across the U.S., Japan, Chile, Korea, and India may influence the ways in which each country's respondents perceive Necessities, Commoners, and Parasites (Kim, Arias-Bolzmann & Magoshi, 2009; Kim, Arias-Bolzmann & Smith, 2008; Kim, Cho & Sikula, 2007; Kim, Smith, Sikula & Anderson, 2011; Kim & Sikula, 2005; Kim & Sikula, 2006; Kim, Sikula & Smith, 2006).

Nevertheless, our analysis of the data used in these previous studies revealed a general set of traits and behaviors that characterizes each of these three categories of workers -- particularly for Necessities. Managers in any organization should be interested in finding and attracting people labeled as a Necessity. Knowing the general traits and behaviors that characterize people as Necessities will help managers recruit the right people, and decide how to make good use of their current employees.

From the previous studies on this topic by Kim et al., the authors have concluded that 1) there was a high degree of commonality in Necessity traits among different socio-cultural environments compared to the traits for the Commoners and the Parasites, 2) it may be highly practical to pursue finding the Necessity traits for business practitioners as their human resource tool to select the right persons for their organizations, and 3) we needed to collect data from actual working people instead of only collecting data from students to increase the reliability and validity of the concept.



OBJECTIVE OF THE STUDY

The objective of the study was to use descriptive analysis to identify the key traits and behaviors that characterize Necessities among working employees and compare it with the previous studies whose data were collected only from business school students.

Methodology

We have adopted the following procedure for collecting the required samples of students and employees for the further

research and the analysis of data .

1. Student samples

The process of collecting and organizing the data in all six previous studies was identical to that used in Kim and Sikula (2005). After explaining the definitions of Necessity, Commoner, and Parasite to the students, one of the authors in each country asked each student voluntarily to turn in a list of ten traits and behaviors describing each type of worker, for which the students received bonus points as an incentive to participate. The responses were tabulated for frequency within each category (Necessity, Commoner, and Parasite). If a response was too generally stated, or too similar to the overall descriptor of each category, it was discarded. For example, responses such as “hard to replace” and “vital person” define a Necessity and hence are not traits or behaviors that characterize the person who is a Necessity. These were discarded.

The usable responses were then grouped together according to the words' meanings through a two-step process. First, a simple table for each category was created by listing all the responses, from most frequent to least frequent. Second, a more specific frequency table was constructed by organizing all the responses in each category into a set of headings and subheadings. The following two examples illustrate the process. In developing the frequency table for the Necessity category, we were able to group many responses under subheadings such as Responsible, Punctual, Dedicated, and Organized. These subheadings were then placed under the broader heading of “Reliable.” The final frequency table for the Necessity category contained 17 headings such as “Dependable” and “Hard Working,” with a varying number of subheadings under each.

2. Employee samples

To collect the data from working employees, a survey was designed closely following the same method that we gave to the student sample but in a written statement. Part I of the survey asked the employee to identify ten typical traits that a “Necessity” possess and/or behaviors they conduct. Part II of the survey consisted of four questions related to demographic information. As stated, we included only the traits and behavior of Necessity excluding Commoner and Parasite. The rest of data handling process was identical to the previous studies.

FINDINGS

The finding of the study have been ascertained as under -

1. Eight student sample data sets from the six studies of five different countries were combined to analysis in this study. As a result, 1850 usable responses for Necessity were identified through 296 respondents (see Table 1). Regarding to the employee participants, 94 participants included 52 males (56.5%) and 40 females (43.5%) participated in this study. The majority of the participants work in the Health Care industry (40.4%), were over 55 years old (36.6%), and have worked in the current company between 5-10 years. A total of 778 usable responses were successfully collected through these 94

employees (Table 2).

Table 1 Descriptive Information of Student Necessity Characteristics

Necessity Worker Characteristics	No of Entries	%
1. Hardworking	316	17.08
2. Reliable	270	14.59
3. Friendly	238	12.86
4. Motivated	192	10.38
5. Knowledgeable	175	9.46
6. Good Communication	161	8.70
7. Leader	97	5.24
8. Committed	69	3.73
9. Dependable	61	3.30
10. Collaborator	53	2.86
11. Other characteristics Creative, Proactive, Confident, Visionary, Caring, Trustworthy, Honest.	218	11.78%
Total	1850	100.00

Table 2 Descriptive Information of Necessity Employee Characteristics

Necessity Worker Characteristics	No of Entries	%
1. Trustworthy	163	20.95
2. Caring	134	17.22
3. Dependable	101	12.98
4. Hardworking	62	7.97
5. Goal oriented	48	6.17
6. Conscientious	36	4.63
7. Cooperative	35	4.50
8. Intelligent	30	3.86
9. Leader / Influential	29	3.73
10. Visionary	24	3.08
11. Problem solver	22	2.83
12. Positive attitude	22	2.83
13. Outstanding communication skills	21	2.70
14. Ethical	21	2.70
15. Confident	21	2.70
16. Calm	6	0.77
17. Successful	3	0.39
Total	778	100.00

2. As shown in Table 3, below the key traits and behaviors that characterize a person of Necessity in the workplace were all positive and were very similar between the two samples. The perceptions of what characterizes a worker as Necessity appeared to be similar among students and working employees. These results implied that companies in all organizations should seek to hire employees who are Hard Working, Reliable (Trustworthy & Dependable), Friendly (Caring), Motivated (Goal Oriented), and Knowledgeable.

Table 3 The Comparison between Student and Employee's perceptionon Principle Characteristics of Necessities

Student's Perception 296 Participants with 1850 Responses			Employee's Perception 94 Participants with 778 Responses		
Hardworking	316 entries	17.08%	Trustworthy (Reliable)	163 entries	20.95%
Reliable	270	14.59	Caring (Friendly)	134	17.22
Friendly	238	12.86	Dependable (Reliable)	101	12.97
Motivated	192	10.38	Hardworking	62	7.97
Knowledgeable	175	9.46	Goal oriented (Motivated)	48	6.17

3. At a glance, there appeared to be some differences between Student Necessity Characteristics (SNC) and Employee Necessity Characteristics (ENC). It looked like Hard Working was the only identical trait and behavior among five identified ones. It was very interesting that Trustworthy is the number one characteristics in ENC. Loyalty and trust must be very important traits/behaviors among working people. One CEO of a company mentioned to one of our authors while collecting data that Loyalty is the only important trait/behavior for his company. At the same time, we may consider Trustworthy as one source leading to Reliable. Although it may not clear the cause and effect relations among these traits/behaviors, we may also consider Dependable as one source leading to Reliable. Likewise, we may also consider Caring and Friendly as very similar concepts.

According to Ed Locke's (1968) goal setting theory, setting specific goal(s) would lead to an individual's strong internal motivation to achieve it; therefore, we may consider that Goal Oriented would lead to Motivated. Upon these analyses, we

could consider 80% of traits/behaviors are the same concept. Hard Working is identical (20%), and Trustworthy-Reliable, Dependable-Reliable, and Goal Oriented-Motivated are similar (60%) in both studies.

It is also interesting that Knowledgeable does not appear to be important in ENC, which is 5th place in SNC (see Table 1 & 2). The closest traits/behavior to knowledgeable in ENC is Intelligence, which is 8th ranked in SNC, although it is a slightly different concept. One more big difference between these two studies is communication skills, ranking 6th in SNC and ranking 13th in ENC. Knowledge and communication skills are not considered important traits/behaviors among working people.



SUGGESTIONS

The present study suffers from certain limitations as detailed below. We shall like to make the following suggestions for further increasing the utility of the study.

To get the SNC, we had eight data sets from five different countries, and for our current study, we have collected data from 94 employees from five different companies in the same region. To develop our analysis of different types of employees further, and to make it more practically useful, we would first like to collect more data from employees and managers in various industries to see whether their responses differ significantly from those of the students we have already surveyed. Second, for practical purposes we should explore the category of Necessity more carefully and completely, since our goal is to provide Human Resource departments with the ability to identify those individuals who are most likely to promote the success and growth of organizations and businesses.

One way to do this would be to create a scale along which we can rank the differential importance of the key characteristics of Necessities. This scale would allow managers to focus their hiring and promotion/retention efforts on those individuals with the most desired characteristics. Such a scale, therefore, would be invaluable in Human Resource Management.

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"MANPOWER PLANNING OPTIMIZATION: A STUDY ON HARYANA ROADWAYS"

** Richa Arora*



Manpower planning is the process by which an organization ensures getting the right number and right kind of people, at right place, at right time, capable of effectively and efficiently completing those tasks, that will help the organization to achieve its overall objectives. Manpower planning has always been the crucial part of all the industries as it helps in performing the managerial functions in the organization. It also helps in effective utilization of manpower, motivates the employees to perform their jobs well and stabilizes human relations in an organization. This research deals with certain factors or variables like periodic and realistic manpower needs, staff costs, optimum productivity and overall growth for the optimization of the manpower in the organization. In the present study, manpower planning optimization in the Haryana Roadways, has been analysed. The focus of this study has been on the lower level of management of this transportation industry, i.e., the level below the general managers. It includes: works manager, traffic manager, store purchase officer, accounts officer, superintendent and assistant district attorney. The periodic and realistic manpower needs have been determined, measures have been taken to regulate the staff cost to ensure optimum productivity and overall growth of the organization. And finally a model has been developed for the optimum utilization of the manpower recruited.

INTRODUCTION:

Manpower planning aims at ascertaining the manpower needs of the organization and also aims at continuous supply of right kind of personnel to fill various positions in the organizations. Manpower planning is a two phased process by which management can project the future manpower requirements and develop suitable action plans to accommodate the implications of projections.

IMPORTANCE OF MANPOWER PLANNING

Key to managerial functions- The four managerial functions, i.e., planning, organizing, directing and controlling are based upon the manpower. Human resources help in the implementation of all these managerial activities. Therefore, staffing becomes a key to all managerial functions.

Efficient utilization- Efficient management of personnel becomes an important function in the industrialized world of today. Setting of large scale enterprises requires management of large scale manpower. It can be effectively done through staffing function.

Motivation- Staffing function not only includes putting right men on right job, but it also comprises of motivational programmes, i.e., incentive plans to be framed for further participation and employment of employees in a concern. Therefore, all types of incentive plans become an integral part of staffing function.

Better human relations- A concern can stabilize itself if human relations develop and are strong. Human relations become strong through effective control, clear

communication, effective supervision and leadership in a concern. Staffing function also looks after training and development of the work force which leads to co-operation and better human relations.

Higher productivity- Productivity level increases when resources are utilized in best possible manner. Higher productivity is a result of minimum wastage of time, money, efforts and energies. This is possible through the staffing and its related activities (Performance appraisal, training and development, remuneration).

TRANSPORTATION INDUSTRY IN INDIA

The transport sector of India is very large and diverse which caters to the needs of around 1.1 billion people. In 2007, this sector contributed to about 5.5 percent to the nation's GDP, road transportation contributing the maximum share. For economic growth of the country good physical connectivity in the urban and rural areas is essential. Since 1990s, a rise in demand for the transport infrastructure and services has been witnessed with India's growing economy but the transportation sector has not been able to cope with the rising demand and prove to be a drag on the economy. Hence, major improvements are required for supporting the country's continued economic growth and for reducing poverty.

Railways: Indian Railways is one of the largest railways and operates under single management. It is one of the world's largest employers and carries around 17 million passengers and 2 million tons of freight a day. Indian railways play a vital role in carrying passengers and cargo across India. However, most of its major corridors have capacity constraint requiring capacity enhancement plans.

Roads: Now day's roads are the dominant mode of transportation in India. These carry almost 90 percent of the country's passenger traffic and 65 percent of its freight. The density of India's highway network is 0.66 km of highway per square kilometer of land which is similar to that of the United States (0.65) and much greater than that of China (0.16) or Brazil (0.20). Most of the highways in India are narrow and congested with poor surface quality. 40 percent of India's villages do not have access to all-weather roads.

Ports: India has 12 major and 187 minor and intermediate ports along its more than 7500 km long coastline. These ports serve the country's growing foreign trade in petroleum products, iron ore, and coal, as well as the increasing movement of containers.

Aviation: India has 125 airports, including 11 international airports. The dramatic increase in air traffic for both passengers and cargo in recent years has placed a heavy strain on the country's major airports. Passenger traffic is projected to cross 100 million and cargo to cross 3.3 million tons by year 2010.

Transport infrastructure in India is better developed in the southern and southwestern parts of the country.

WHY TRANSPORTATION INDUSTRY

The transportation industry faces some common manpower planning problems and challenges:

- Image of the transportation industry is so much deteriorated that it does not attract the skilled labour in the industry.
- Training is an important issue. There is a need to train the attracted people to allow them to reach the productivity level.
- Need to develop the human strategies to satisfy the people in the industry.
- Need for fund innovation capacity allowing workforce to contribute to the production of new and improved goods and services or processes.
- Need to have more central forums where workforce can act collectively for handling the problems they are facing instead of facing the problems alone.



RELEVANCE OF THE STUDY:

Manpower planning is the first step in the process of procurement of human resources of an organization. It covers more than simply planning for the future manpower needs of an organization. Manpower Planning is a two-phased process because manpower planning not only analyses the current human resources but also makes manpower forecasts and thereby draw employment programmes. Manpower Planning is needed in the organizations because:

- Shortages and surpluses can be identified so that quick action can be taken wherever required.
- All the recruitment and selection programmes are based on manpower planning.
- It also helps to reduce the labour cost as excess staff can be identified and thereby overstaffing can be avoided.
- It also helps to identify the available talents in a concern and accordingly training programmes can be chalked out to develop those talents.
- It helps in growth and diversification of business. Through manpower planning, human resources can be readily available and they can be utilized in best manner.
- It helps the organization to realize the importance of manpower management which ultimately helps in the stability of a concern.

This study will help to determine the level of job satisfaction among the employees working in the Haryana Roadways and the level of satisfaction of the customers of the Haryana Roadways. This satisfaction level will help to establish a relationship between the customer satisfaction and job satisfaction of the employees and also between the job

satisfaction of the employees and their performances. This in turn will help to determine the performance through which the optimum utilization of the recruited personnel can be done so as to abolish the surplus and redundant posts as this directly affects the cost and the overall objectives of the organization.

OBJECTIVES OF THE STUDY:

- To determine the impact of job satisfaction on performance of the employees.
 - a.) To determine the level of job satisfaction of the Haryana Roadways employees on their extrinsic rewards and intrinsic rewards.
 - b.) To assess the level of relationship between performance of the employees and job satisfaction.
- To study the relationship between employee satisfaction and customer satisfaction in Haryana Roadways.
- To determine the relationship between job satisfaction and employees productivity.
 - a) To determine the relationship between physical components at work and performance.
 - b) To determine the relationship between behavioural components at work and performance.
 - c) To analyse which of the two components: physical or behavioural, have greater effect on performance.
- To determine the efficiency, effectiveness, performance and productivity of the various depots of Haryana State Transport Undertaking.



RESEARCH METHODOLOGY:

The type of study adopted in this research is descriptive research design. This design was appropriate for the study as it did not allow for the manipulation of the variables.

A research design entailed the arrangement of conditions for collection and analysis of data in a manner that aimed to combine relevance to the research purpose with economy in procedure. Through this research, we analysed the various factors which motivated people to behave in a manner or which made people like or dislike a particular thing and thus leading to the satisfaction of employees and satisfaction of the customers and hence the impact of job satisfaction on job performance of employees working in Haryana Roadways.

The data collected justified the use of this research design. The design was based on the assumption that population surveyed was a representative of the whole population. Questionnaires were issued on the sampled population.

SAMPLE DESIGN

Multistage stratified random sampling was done except for managers. Though there were six managers in each district

thus all were included as the sample for the research. Stratified random sampling is a type of Probability sampling technique where the samples are gathered in a process that gives all the individuals in the population equal chances of being selected. In this sampling technique the entire target population is divided into different subgroups, or strata, and then the sample is selected randomly from the different strata. For the purpose of analyzing the research problem, the respondents were selected from the five districts of Haryana, namely, Ambala, Hisar, Rewari, Panipat and Rohtak to carry out the research. These districts were selected on the basis of their efficiencies. The districts with maximum efficiency in the region were selected. Three employee categories were considered: Managers, Non Managers and Drivers. The employees were included in the sample to analyze the relationship between job satisfaction and performance and hence determine the productivity of the employees of Haryana Roadways. And the customers of Haryana Roadways were also included in the sample to analyze the impact of employee satisfaction on customer satisfaction.

SAMPLE SIZE

Sample size of 780 was drawn for the purpose of carrying out this research; out of which 530 were the employees of Haryana Roadways and 250 were the customers who travel in Haryana Roadways more than once in a month (refer Table3.1).

Table 3.1 - Composition of Sample

Respondents	Number
Managers	30
Non-Managers	250
Drivers	250
Customers	250
Total	780

METHOD OF DATA COLLECTION

The method of data collection used in this research was mainly the questionnaire method. This method was used to collect the primary data for this research and then the analysis was carried out on the basis of the data collected. This method enabled one to collect the different views and opinions as well as quantitative data.

The primary data was collected using the questionnaire method; it affords the advantages of speed, cost and versatility. The questionnaire was developed using the review of literature. To avoid any subjectivity bias, questionnaire included the questions and the information based on the various levels of the data measurement. The respondents are instructed to tick an appropriate box for each question. Some close – ended questions were also included. Three separate questionnaires were developed to carry out the research and to determine the results for the objectives. Personal interviews and discussions were also conducted to support the data set. The SPSS software version 16.0 was used as a tool to analyse the data collected through the means of questionnaire and to determine the output.

The questionnaire contained questions related to productivity, competence and performance. The job facets were based on Herzberg’s theory to measure the employee productivity. These job facets were company policies, technical supervision, interpersonal relations, salary and employee benefit package, working conditions, achievement, recognition, advancement and opportunity for growth, working hours, nature of work, workload, physical factors at workplace, behavioural factors at workplace and responsibility. The employee performance was measured in terms of effort extended to the job. The respondents were required to indicate their level of productivity by using scales ranging from very low to very high and some close ended questions were also included in the questionnaire.

Further in order to determine which rewards (motivational and hygiene) make high level productivity, the above identified job facets were divided into extrinsic and intrinsic rewards. Extrinsic rewards will be determined through status, security, pay, promotion, interpersonal relations and intrinsic rewards will be determined through recognition, growth, accomplishment, challenge, autonomy, completion, feedback, and variety of job. The employee performance was measured in terms of effort extended to the job.

The factor analysis and discriminant analysis were done on the factors for the non-managers and drivers. No factor analysis and discriminant analysis was conducted on the factors for managers because the sample size for managers was very less. The coefficient of correlation was also applied to identify the impact of job satisfaction on the performance of employees and it was calculated by using level of job satisfaction as the independent variable and level of performance as the dependent variable for the employee categories.

The separate questionnaire was used to collect the data pertaining to the attitudes related to customer satisfaction with service quality, employee coordination, and customer loyalty and employee behaviour with customer and employee satisfaction with perception of work resources, perception of relationship value and reward system. The questionnaire was divided into two sections: Section one consisted questions related to customer satisfaction and Section two contained questions related to employee satisfaction. The respondents were required to indicate their level of satisfaction rating by using a five-point scale ranging from very low to very high and some close ended questions were also included in the questionnaire.

The coefficient of correlation was applied to identify the impact of employee satisfaction on customer satisfaction and it was calculated by using level of employee satisfaction as the independent variable and level of customer satisfaction as the dependent variable.

The IFAS and EFAS were also conducted on the different variables to determine the impact of the internal factors and external factors on the satisfaction of the employees and hence their performance.

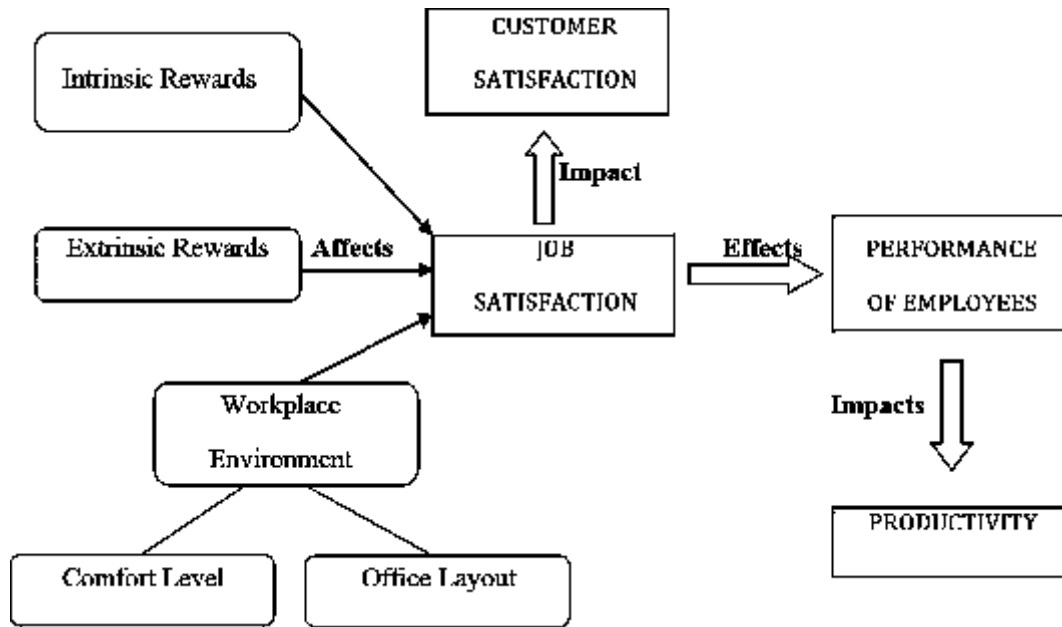


Fig. 3.2: Conceptual Framework

The data for this study also covered 20 depots of Haryana State Transport Corporation. The data had been obtained from the Transport Statistics of Haryana State Transport Department (2011-12). This acquired Total Staff, Fuel Consumption and Fleet Strength as input variables and Passenger kilometres as the output variable.

In this study, we had selected a single output, Passenger kilometres (Pass-kms), produced by the above three inputs. A passenger kilometre is basically revenue passenger kilometres take into account the demand side information. It is obtained by multiplying load factor to effective kilometres and capacity (Pass-kms = Load factor * effective kms * capacity). The output is taken as the outcome of the utilization and combination of three inputs - total staff, fuel consumption and fleet strength. Total staff refers to the total number of employees working in a depot. Total staff is the representative of the labour input. Fuel consumption refers to the fuel consumed (in Lakh Litters), which is measured by dividing total earned kilometres by fuel average. It is the representative of the material cost. Fleet size comprises the average number of buses held in a depot. Efficiency, effectiveness and productivity are calculated for each depot using the desired formulas for their calculation.

In this study, input-oriented model had been employed, i.e. how much resources could be reduced without changing the output produced to make the depot efficient (Charles et. al., 1997).

A model of DEA (Data Envelopment Analysis) was used to evaluate Technical efficiency.

A model of DEA (Data Envelopment Analysis) was used to evaluate Technical efficiency.

$$\text{Effectiveness} = \text{Actual output} / \text{Expected output}$$

Using this formula the effectiveness of Haryana State

Transport Corporation depots based on operated kilometers could be calculated.

$$\text{Staff Productivity} = \text{Effective kilometers} / \text{persons} / \text{day}$$

Using this formula the productivity for the staff of the depots of Haryana State Transport Corporation could be calculated.

$$\text{Vehicle Productivity} = \text{Effective kilometers} / \text{Bus} / \text{day}$$

Using this formula the productivity for the buses of the depots of Haryana State Transport Corporation could be calculated.



ONCEPTUAL FRAMEWORK

The conceptual framework was designed to give the clear understanding of the inter-linkages between the different variables used in the study. This also helped to depict the impact of one variable on the other variable used in the study.

The above flowchart shows the study framework of the study in the form of input and output factors.



ONTRIBUTIONS OF THE PRESENT STUDY

1. Research on road transport corporations in India is limited; especially passenger transportation most early studies of the 1970 through 2000 have analyzed financial performance of roadways corporations. The present study focuses on the internal and also external stakeholders. The internal stakeholders are the employees while the external ones are the customers. Therefore, this study fills an important gap in the Indian literature on the interface between the internal and external stakeholders.

2. This study links employee satisfaction to the overall organizational performance. Until, the employees are satisfied and motivated enough they are unlikely to interface with the external stakeholders and contribute towards organizational performance.
3. This study analyses the dimensions of work conditions and behavioral characteristics of the employees as these leave significant impact on the organizational performance and stakeholders interface.
4. The present study highlights performance aspects of non-

- managerial and drivers personnel (a majority group of employees) which enables us to better appreciate the case aspects of optimization of manpower planning.
5. According to our information this is the first ever study on the organizational and HR aspects of a road transport corporation in India and hence is the contribution.
6. The study will help future researches on organizational-stakeholders interface.

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We strive to provide a dynamic learning environment for imparting holistic education that inculcates professional excellence, induces competitive spirit, instils leadership quality to carve a niche in the changing global scenario

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MBA PROGRAMME

- Assistant Professor: (MBA)** First Class or equivalent in Masters Degree in Business Administration or equivalent and two years relevant experience is desirable.
- Associate Professor: (All Programmes)**
 - Qualifications as above i.e. for the post of Assistant Professor, as applicable and PhD or equivalent, in appropriate discipline.
 - Post PhD publications and guiding PhD students is highly desirable.
 - Min. 5 yrs experience in teaching/research/industry of which at least 2 yrs post PhD is desirable.
- Professor (I) (All Programmes)**
 - Qualifications as above i.e. for the post of Associate Professor, as applicable.
 - Post PhD publications, guiding PhD students, demonstrating leadership in planning and organizing academic, research, industrial and/or professional activities, and capacity to undertake/lead sponsored R&D consultancy and related activities are highly desirable.
 - Min. 10 yrs experience in teaching/ research/industry of which at least 5 yrs should be at the level of Associate Professor

Or

Min. 13 yrs experience in teaching/ research/industry.
In case of Research experience, good academic record and books/research paper publications/IPR/ patents record shall be required as deemed fit by the expert members in Selection Committee.
In case of Industry experience, the same should be at managerial level equivalent to Associate Professor with active participation record in devising/designing, planning, executing, analyzing, quality control, innovating, training, technical books, research paper publications/IPR/ patents, etc. as deemed fit by the expert members in Selection Committee.

BBA/B.COM (H) PROGRAMMES

- Assistant Professor: (BBA/B.Com (H))**
 - Good Academic record with at least 55% marks or equivalent grade at Master's degree level in the relevant subject from Indian University or from Foreign University.
 - Passing of NET/SLET/SET.
- Associate Professor: (All Programmes)**
 - Eminent scholar with Ph.D qualification(s) in the concerned /allied/relevant discipline with high quality published work. Minimum of 10 publications as books and/or research / policy.
 - Min. 10 yrs of teaching experience in university/ college / research at the University/ National level Institutions/Industries, including guiding Ph.D students.
 - Contribution to educational innovation, design of new curricula and courses, and technology – mediated teaching learning process.
 - A minimum score as stipulated in the Academic performance indicator (API) as per the UGC 2010 Regulations.

OR

An outstanding professional, with established reputation in the relevant field with significant contributions in the concerned/allied/relevant discipline, to be substantiated by credentials.

RESEARCH ASSISTANT

- Research Assistant** First class or equivalent in Master's Degree in Management or allied subjects from an Indian University or from a Foreign University. Flair for research is highly desirable.

LIBRARIAN

- Librarian** B.Lib/M.Lib degree(s) preferably with 2 yrs. of working experience in a computerized Library & well versed in English language.

II. EMOLUMENTS

Designation	Pay Scale	Other Admissible Allowances
Assistant Professor	Rs.15,600-39,100 AGP 6,000	Other allowances and benefits as per norms
Associate Professor	Rs.37,400-67,000 AGP 9,000	
Professor	Rs.37,400-67,000 AGP 10,000 (Minimum Basic Rs.43,000)	
Research Assistant/Librarian	As per Norms	

III OTHER REQUIREMENTS

- Candidates who have cleared NET or having Industry experience will be preferred for the position of Assistant Professor in MBA.
- Recently retired persons with Phds may also apply.
- Application has to be in the prescribed form. Applications not in the prescribed form or having incomplete details are likely to be rejected.
- Duly filled in application form can either be submitted online or in person at the Institute's address mentioned above.
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