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

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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 shakes 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 talks 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.
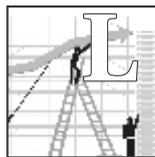
ITERATURE REVIEW

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, beahvioural 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.
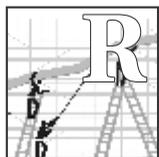
RESEARCH METHODOLOGY

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 Barlett'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 Barlett'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 %	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 home 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).
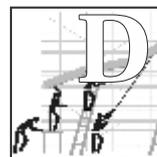
DISCUSSION

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 home 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.
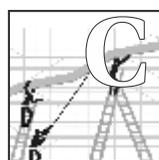
ONCLUSION AND IMPLICATIONS

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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