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Examining the Factor Structure and Role of Unit Level Development Climate on Work Engagement among Indian Business Executives

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Abstract

Employee engagement is a relatively new concept and the factors that produce engagement may be different from those that produce more traditional employee outcomes such as job satisfaction and organizational commitment. The present paper attempts to address this interesting research question by examining the effect, human resource development climate of an organization has on the level of work engagement of its employees. The sample consisted of 167 business executives from both public and private sector manufacturing and service organizations with 85% of them being males. Factor analysis was used to first define factors of HRD climate. Study hypotheses were tested using a cross sectional design with the help of correlation and hierarchical regression analysis. In contrast to the impact of six dimensions of HRD climate, overall perceived HRD climate had a much more statistical significant association with work engagement. Except for the 'Trust and Team Spirit' all other dimensions of HRD climate accounted for significant amount of variance in work engagement. Organizations implementing the practices that increase employee perceptions of all six factors of HRD climate should enjoy the greatest benefit in terms of increase in employees' work engagement. By investigating the differential relationship between different dimensions of HRD climate and work engagement from the organizational climate perspective, the present paper addresses the concern for the declining interest in the climate studies and makes a significant contribution to the scarce literature on work engagement from developing economies.

Keywords: *Employee Development, Hierarchical Regression, Human Resource Development climate, Work engagement*

Introduction

In the current economic climate, the employee's psychological connection with their work has become a key to remain in competition. The organizations are in need of employees who feel

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vigor, dedication and are absorbed by their work (Leiter & Bakker, 2010). Most of the studies around the antecedents of work engagement have focused on the environmental correlates of work engagement. But rarely could we find any study which attempted to correlate the facets of developmental climate with different work engagement dimensions. In addition, Bakker and colleagues in their recent and highly appraised paper proposed "Climate for engagement" to be a promising future avenue for research (Bakker, Albrecht, & Leiter, 2010). Bakker *et al*. (2010) proposed that in order to have a comprehensive understanding of the relationship between climate and engagement there is a need to agree on a core set of engagement related climate dimensions. The present paper is an attempt in this direction, which aims at studying role of human resource development climate in facilitating work engagement among employees of select business organizations in India. It specifically attempts to determine the factor structure of HRD Climate and identify the most important climate dimensions influencing work engagement.

Our study examining such relationships is noteworthy and considerable for several reasons. First, there is little empirical evidence in the existing literature pertaining to the antecedents of work engagement (Mauno, Kinnunen, & Ruokolainen, 2007; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007), particularly the research evidence in Indian context is insufficient. In view of that, building on and extending recent research, we test the impact of human resource development climate on work engagement among employees of select business organizationa in India. Second, since, employee engagement is a relatively new concept (Macey & Schneider, 2008) and the factors that produce engagement may be different from those that produce more traditional employee outcomes such as job satisfaction and organizational commitment (Macey, Schneider, Barbera, & Young, 2009), it will be interesting to examine what effect the human resource development climate of an organization has on the level of work engagement of its employees. Third, most of the research on work engagement has focused on the samples from countries such as the Netherlands, Spain, Finland, Sweden, and Canada (Karatepe & Olugbade, 2009). In addition, research evidence relating HRD with organizational outcomes is still scarce with little knowledge coming from developing countries like India. Literature clearly suggests that very few studies have focused on relating HRD with soft variables like employee attitudes, well being etc. (Hasan, Hashim, & Ismail, 2006). Thus, our study extends the extant literature to one of the developing and fast growing economies of the world, India, to widen the database.

Work Engagement

Work Engagement began with the work of Kahn (1990), then grew with Maslach and Leiter (1997), and continues more presently with Schaufeli and colleagues (Muilenburg-Trevino, 2009). Kahn (1990) defined personal engagement as "the harnessing of organization members' selves to their work roles" and he adds, "in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances". Kahn (1990) provided a conceptual basis for engagement, but did not develop an operational definition (Schaufeli *et al*., 2002). Maslach and Leiter (1997) defined engagement as the antipode of burnout. At one end of the continuum is burnout while engagement lies at the opposite with energy, involvement, and effectiveness being the three dimensions in the continuum (Maslach & Leiter, 1997). Schaufeli, Salanova, Gonzalez-Roma, and Bakker (2002) asserted that although engagement is the antithesis of burnout, engagement an independent state of mind separate from burnout, thereby requiring a different operational definition. They defined work engagement as "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption". Rather than a fleeting state of mind, engagement is "a more persistent and pervasive affective-cognitive state that is not focused on any particular object, event, individual, or behavior" (Schaufeli *et al*., 2002).

Human Resource Development Climate

"HRD is the process of enabling people to make things happen. It has the potential to convert human resource potential into actual capabilities and actions" (Garavan, Morley, Gunnigle, & Collins, 2001). According to Rodrigues and Chincholkar (2005)

"It deals with 'competency development' and creates conditions through public policy, programs and other interventions to help people apply these competencies for their own benefit and to the benefit of others. It is crucial to create an environment that encourages learning and development of required competencies in conjunction with the strategic planning of an organization." (p. 8)

HRD climate is a measure of the perceptions of employees about the prevailing nature of HRD or the development environment of the organization. HRD Climate is an integral part of organizational climate but is more development oriented. For the effective implementation of HRD functions a general supportive climate is required. It is the HRD culture which facilitates effective implementation of HR systems therefore, the development and management of a congenial HRD climate is must (Krishnaveni, 2008). Hassan *et al*. (2006) reported that the HRD practices determine the HRD Climate of any organization. As p er their findings, organizations with better learning, training and development systems, reward and recognition, and information systems promoted human resource development climate. Thus, a favorable HRD climate is essentially an important resource for the organizations to stay head of competitors in this era of global competition.

There has been a great deal of inconsistency in the climate literature regarding the climate dimensions. Five decades of research on climate has not resulted in any conclusive set of climate dimensions. Different researchers have given their own label to climate dimensions which makes the cross study comparisons difficult (for eg. Campbell, Dunnette, Lawler, & Weick,1970; Pritchard & Karasick, 1973; Brown & Leigh, 1996; Ostroff, 1993; Litwin & Stringer, 1968). The present study uses HRD climate survey instrument by Rao & Abraham (1986). It conceptualizes HRD climate under three dimensions of general climate, OCTAPAC culture and HRD mechanisms respectively for the ease of interpretation. The general climate dimension deals with the importance given to human resources development in general by the top management and line managers. The OCTAPAC items deal with the extent to which openness, confrontation, trust, autonomy, proactivity, authenticity and collaboration are valued and promoted in the organization. HRD mechanisms measure the extent to which HRD mechanisms like performance appraisal, potential appraisal, career planning, performance rewards, feedback and counseling, training, employee welfare, job rotation etc. are implemented seriously (Rao & Abraham, 2010). In order to come up with core set engagement related HRD Climate dimensions it was necessary to first define the climate factors clearly. Also, D' Amato and Zijlstra (2008) argued that it was important that the number of climate dimensions be reduced for the ease of interpretation while retaining the explanatory power. Thus, in order to get the clear factor structure of HRD climate, the statistical technique of factor analysis was used, the results of which are presented later in the paper.

Theoretical Foundation

According to Job-Demand Resource model (Bakker & Demerouti, 2008) job resources are the most important determinants of work engagement. A large number of job resources like autonomy, social support, supervisory coaching, performance feedback, participation in decision making and opportunities for learning, training, professional development have been identified to relate positively with work engagement (Bakker, Demerouti, & Schaufeli, 2003; Demerouti, Bakker,

Nachreiner, & Schaufeli, 2001; Hakanen, Bakker, & Schaufeli, 2006; Saks, 2006; Xanthopoulou *et al*., 2007). Drawing from the JD-R model (Bakker & Demerouti, 2008) and need theories such as Self Determination Theory (Deci, Connell, & Ryan, 1989) we argue that when employees perceive that their organization provides a supportive, involving, and challenging climate, and hence accommodates their psychological needs, they are more likely to respond by investing time and energy and by being psychologically involved in the work of their organization (Bakker *et al*., 2010).

The perceptions of the work environment result in various cognitive and affective states which when combined with the opportunity to act and associated beliefs; become the immediate antecedents of behavior (Mathieu & Zajac, 1990). As Fleck and Inceoglu (2010) rightly said

"The environmental features are therefore critical to understanding what makes employees engaged, and perhaps most importantly, they are the keys to taking action to increase engagement and performance. If we know which work environment features are affecting engagement in a particular context, then we know which levers to pull in order to enhance engagement." (p. 34)

Research has suggested that climate influences cognitive and affective states. For instance, the relationships between climate and job satisfaction and between climate and commitment are quite robust (e.g., DeCotiis & Summers, 1987; Pritchard & Karasick, 1973; Carr, Schmidt, Ford, & DeShon, 2003).

Based on the above theoretical foundation and literature review we hypothesize:

H1: HRD climate will positively impact work engagement or the greater the presence of a perceived HRD Climate within an organization, the higher will be the work engagement of employees.

Kopelman, Brief, and Guzzo (1990) suggested that different climate dimensions relate to different cognitive and affective states. Specifically, they proposed that climate's influence on performance occurs primarily through its effect on work motivation, whereas its impact on withdrawal behaviors is through work motivation and job satisfaction. Carr *et al*. (2003) based on the contentions of Lee and Allen (2002) that cognitions and affect are not completely independent of each other, they are sufficiently different to show a differential pattern of relations with other variables, proposed that there would be differential relationship between the three facets of organizational climate, the cognitive and affective states, and the various outcomes. Thus we hypothesize:

H2: Different facets of HRD climate will relate differently to work engagement.

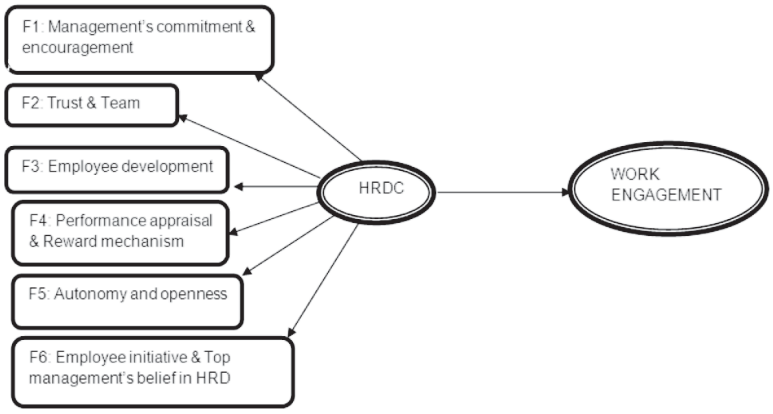

Figure 1: The Proposed Relationship between HRD Climate Dimensions and Work Engagement.

Figure 1 below shows the hypothesized model of the proposed relationship between study variables.

Methodology

Participants and Procedure

The study sample consisted of 167 business executives from nine different organizations in India. Included in the sample were both public and private sector organizations. The nature of the organizations was varied. Two of them were into manufacturing, two were from oil and power sector and the other five were from FMCG, Finance, insurance, IT and real estates. Different nature of organizations resulted in greater occupational heterogeneity and hence greater statistical power (Langelaan *et al*., 2006). The responses were collected through the convenience sampling method using personal contacts. Data was collected both directly by personal visits to organizations and through online questionnaire. The sample consisted of 15% females and 85% males in the age group ranging from 22yrs to 54yrs (mean=32.79, S.D= 8.2). The educational levels of participants were varied with 50.8% of them being graduates and 47.3% holding postgraduate degree. The majority of the executives belonged to junior management cadre (junior level =71.2%, middle level=23.3%, senior level=4.7%). The work experience profile of the respondents was also varied with 49.7% of them having work experience of less than 5 years, 19.7% with work experience of 5-10yrs and 26.9% having experience of more than 10yrs.

Control Variables

Six control variables were included in the tests of the hypotheses. These were gender, age, educational level, organizational tenure, job level and the number of employees. These variables were controlled as some studies have reported link between gender, age, organizational tenure, job level and work engagement (for eg., Truss *et al*., 2006; Business world, 2008). The number of employees in each organization was also controlled for as there was considerable difference in the group sizes in the sample.

Measures

Work Engagement. Work engagement was measured with 17item Utrecht Work Engagement Scale (UWES) developed by Schaufeli *et al*. (2002). All the 17 items were rated on a 5-point frequency-based scale (1 = strongly disagree, 5 =strongly agree). A principal component analysis conducted with the data from the present study did not result in a clear factor solution. This may be due to the fact that the three dimensions of engagement are very closely related. Schaufeli *et al*. (2006) for this reason recommended the total score on the UWES as an indicator of work engagement for practical purpose. Therefore, an overall scale was used that showed high reliability (Cronbach's alpha= 0.889).

HRD Climate. Individuals do not respond to the work environment directly, they first perceive and interpret their environment (Carr *et al*., 2003).Therefore a perceptual measure of climate would be more appropriate. Further, as we were interested in predicting work engagement among employees, a molar climate construct was used instead of specific measure of climate, which is more appropriate for predicting specific outcomes (see Carr *et al*., 2003). Therefore, 38 items HRD Climate survey instrument by Rao & Abraham (1986) was used for assessing the level of HRD climate in the organizations understudy. This instrument was particularly chosen to measure the developmental climate in the Indian context as it is customized to cater to specific types of organizations and employees as per country specific requirements.

Analysis

Exploratory Factor Analysis. In order to elucidate the factor structure, data collected using

Table 1: Factor Analysis Showing Factor Loadings of 21items on Extracted Six Factors

			Factor			
Items	1	2	3	4	5	6
Management's commitment and encouragement						
Development of subordinates is seen as an important part of their job by the managers here.	0.713					
The top management of this organiz ation makes effort to identify and utilize the potential of employees.	0.682					
Senior executives in this organization take active interest in their juniors and help them learn their job.	0.647					
Employees are encouraged to experiment with new methods and try out creative ideas	0.608					
Employees returning from training programs are given opportunities to try out what they have learnt.	0.553					
Managers in this organization believe that employee behavior can be changed and people can be developed at any stage of their life	0.552					
Trust & Team spirit						
People trust each other in this organization.		0.79				
People in this organization are helpful to each other.		0.77				
Team spirit is of high order in this organization.		0.62				
Career opportunities are pointed out to juniors by senior officers in the organization.			0.789			
The personnel policies in this organization facilitate employee development.			0.647			
The top management of this organization makes efforts to identify and utilize the potential of the employees.			0.606			
Delegation of authority to encourage juniors to develop handling higher responsibilities is quite common in this organization.			0.531			
Performance appraisal & Reward mechanism						
Promotion decisions are based on the suitability of the promotee rather than on favoritism.				0.689		
There are mechanisms in this organization to reward any good work done or any contribution made by employees.				0.684		
Performance app raisal reports in our organization are based on objective assessment and adequate information and not on favoritism				0.639		
Autonomy & Openness						
Employees are encouraged to take initiative and do things on their own without having to wait for instructions from supervisors.					0.799	
Employees are not afraid to express or discuss their feelings with their subordinates.					0.574	
When problems arise people discuss these problems openly and try to solve them rather than keep accusing each other behind the back					0.573	
Employee initiative & Top management's belief						
When seniors delegate authority to juniors, the juniors use it as an opportunity for development.						0.747
The top management believes that human resources are an extremely important resource and that they have to be treated more humanly.						0.545
Percentage Variance	13.7	10.75	10.71	9.11	8.99	7.22
Eigen Value	2.881	2.259	2.251	1.914	1.888	1.517

the 38-item questionnaire on a sample of 167 employees from nine different organizations was subjected to repeated factor analysis to extract the underlying factor structure using Principal Component Analysis by successive removal of the items with factor loadings of less than .50.Varimax rotation with kaiser normalization was used to obtain the rotated component matrix. Overall six factors emerged with eigen values greater than 1. Thus the revised HRD climate scale consisted of 21 items with six factors explaining 60.53% of variance. The reliability value of this 21 item scale was found to be 0.885. The factor loadings with percentage variance explained and Eigen values are shown in Table 1. All items loaded on their respective factors, with relatively small coefficients on the other factors.

Thus based on factor analyses six factors i.e 'Management's commitment and encouragement', 'Trust and team spirit', 'Employee development', 'Performance appraisal and reward mechanisms', 'Autonomy & openness' and 'Employee initiative & Management's belief' emerged as shown in figure 1.

Data Aggregation. The agreement among the individuals from the same context must be demonstrated before aggregating individual climate perceptions of development climate to represent development climate at organizational level (James, 1982). Intra-class correlations were computed to assess the agreement between individual perceptions in each organization under study (James, Demaree, and Wolf, 1984). ICC (1) and ICC (2) were calculated using the formulae given by Bliese and Halverson (1998) as reproduced below. ICC (1) for this scale is 0.255, which means 25.5% of the variance in employees' rating of HRD climate is due to the organizational membership. ICC2 is 0.863, which is well above the 0.70 criterion proposed in Klein and Kozlowski (2000). This means we can reliably make between-workplace comparisons.

$$ICC(1) = \frac{MS_B - MS_W}{MS_B + (N_G - 1) * MS_W}$$

Where N_G is

$$N_G = \frac{1}{k-1}\left(\sum_{i=1}^{k} N_i - \frac{\sum N_i^2}{\sum N_i}\right)$$

Where k is number of groups/organizations, Ni is the number of individuals in i^{th} organization.

One way anova for each of the six HRD climate factors was computed with these nine organizations as independent variable in order to check for the group level variance. All F ratios were highly significant ($p<0.01$) as can be seen from table 2 below. HRD climate mean values lie from 2.42 to 5, indicating its variability in the organizations under study.

The unit of analysis in this study was the individual. All the individuals within the same organization were assigned climate scores corresponding to those of their organization, but climate scores varied across individuals from different organizations.

Results

Table 3 presents the means, standard deviation, reliability measures and correlations for the variables in this study. As can be seen from the table HRD climate correlates positively with work engagement. Additionally, all HRD climate dimensions correlated positively with work engagement. However the correlation coefficient between work engagement and 'Trust & Team spirit' dimension of HRD climate was found to be insignificant.

Table 2: Anova Results Showing Significant Difference in the Perceptions of HRD Climate between the Organizations under Study

Variables		Mean Square	F value	Sig.
F1	Between Groups	97.021	8.771	.000
	Within Groups	11.062		
	Total			
F2	Between Groups	25.564	5.919	.000
	Within Groups	4.319		
	Total			
F3	Between Groups	25.843	4.242	.000
	Within Groups	6.093		
	Total			
F4	Between Groups	14.378	2.917	.005
	Within Groups	4.929		
	Total			
F5	Between Groups	14.330	3.580	.001
	Within Groups	4.002		
	Total			
F6	Between Groups	5.818	4.000	.000
	Within Groups	1.455		
	Total			
Total	Between Groups	1.465	7.309	.000
	Within Groups	.200		
	Total			

Table 3: Mean, Standard Deviation, Reliabilities of the Study Measures and Inter-Correlations among Study Variables

Variables	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14
Gender	0.85	0.36														
Age	32.8	8.2	.25**													
Edu	1.4	.60	-.13	.08												
Tenure	0.76	.86	.24**	.86**	.02											
Position	0.33	.57	.16*	.45**	.18*	.34**										
No. of employees	23.1	9.4	.07	.30**	.08	.34**	-.02									
F1	3.8	.36	.21**	.34**	-.07	.39**	.05	.34**	(0.68)							
F2	3.75	.37	.26**	.24**	-.14	.37**	-.06	.67**	.57**	(.73)						
F3	3.86	.28	.07	.07	.11	.03	-.08	.70**	.63**	.60**	(.72)					
F4	4	.28	.20*	.53**	-.05	.57**	.14	.38**	.66**	.29**	.28**	(.65)				
F5	3.76	.28	.07	.36**	.04	.32**	.07	.47**	.83**	.32**	.65**	.63**	(.80)			
F6	4.06	.26	.06	.01	.11	-.01	-.05	.34**	.78**	.39**	.85**	.29**	.70**	(.45)		
HRD Climate	3.83	.27	.20*	.29**	-.03	.31**	.001	.55**	.94**	.70**	.84**	.57**	.82**	.85**	(.885)	
	3.99	.54														
WE			.30	.08	.03	.01	.03	.09	.54**	.11	.39**	.39**	.54**	.50**	.51**	(.889)

Note. *p<.05, **p<.001.

Figures in the parenthesis represent the reliability values of the measures.

The relationship between HRD climate dimensions and work engagement was assessed using hierarchical regression analysis. As, this would help us determine the variation explained in work engagement by different climate dimensions and help us test the study hypotheses that HRD climate and its different facets relate differently to work engagement.

Test of Hypotheses

Hypothesis 1 proposed that higher levels of HRD climate would be positively associated with work engagement. As can be seen from the table 4 below HRD climate had positive and statistical significant association with work engagement (β=.657, p<.001). It can also be seen that HRD climate accounted for 28.2% of the variance in work engagement (Adjusted R^2=.282, p<.001). Thus, the results of the study provide support for Hypothesis 1.

It was also noted that only two control variables i.e number of employees (β= -.248, p<.001) and organizational tenure (β=-.22, p<.05) were found to have significant effect on work engagement. Overall the effect of control variables was found to be insignificant.

Table 4: Results of Hierarchical Regression Analysis with Overall HRD Climate as Independent Variable

Independent Variables	*R*	*β*	R^2	*Adj* R^2	*F*	*Sig*	$R^2\Delta$	*FΔ*	*SigΔ*
Step1: Controls	0.16		0.025	-0.013	0.657	0.684	0.025	0.657	0.684
Gender		-0.082							
Age		0.161							
Education		0.009							
Tenure		-0.222*							
Job level		0.04							
No. of employees		-0.248**							
Step2: Climate	0.561**		0.314	0.282	9.825	0.001	0.289	63.21	0.001
HRD Climate		0.652**							

Note. *p<.10, **p<.001

In order to test the study hypothesis 2 which was aimed at assessing the relative importance of HRD climate relative to the six underlying dimensions, hierarchical regression analysis was again undertaken using the six dimensions as independent variables. The results are presented in the table 5 below.

Table 5: Results of Hierarchical Regression Analysis with Six Dimensions of HRD Climate as Independent Variable

Independent Variables	*R*	β	R^2	*Adj* R^2	*F*	*Sig*	$R^2\Delta$	*FΔ*	*SigΔ*
Step1: Controls	.16		.025	-.013	.657	.684	.025	.657	.684
Gender		-.035							
Age		.014							
Education		-.015							
Tenure		-.163							
Job level		.041							
No. of employees		-.283							
Step2: HRD Climate Dimensions	.643**		.414	.365	8.53	.001	.388	16.01	.001
F1		.507							
F2		-.238							
F3		.573**							
F4		.197							
F5		.100							
F6		-.334							

The six dimensions of HRD climate were found to influence work engagement. Together the six factors accounted for 36.5% of the variance in work engagement (Adj R^2 = .365, p<.001). The change in the R square value when the six factors of HRD climate were added in step 2 after controlling for the demographic variables was .388, p<.001. But out of six only 'employee development' dimension was found to influence work engagement significantly (β= .573, p<.001). None of the demographic variables unlike the previous case were found to be significant.

To our surprise 'trust and team spirit' & 'employee initiative and top management's belief' had negative and insignificant beta coefficients. However, when the six factors were entered one by one in the hierarchical manner, the order of entry of factors being decided on the basis of the correlation coefficients, all the factors except for the above two accounted for significant change in work engagement. The results are presented in the table 6 below.

Table 6: Model Summary when Six Dimensions of HRD Climate were Added to the Regression Equation One after the other in Hierarchical Manner.

Predictor variables	R	R^2	Adj R^2	ΔR^2	FΔ	Sig.Δ
Control variables	.160	.025	-.013	.025	.657	.684
Control variables, F1	.582	.339	.308	.314	71.153	000
Control variables, F1,F5	.608	.370	.336	.031	7.286	.008
Control variables, F1,F5,F4	.624	.389	.352	.020	4.736	.031
Control variables, F1,F5,F4, F3	.639	.408	.368	.019	4.753	.031
Control variables, F1,F5,F4, F3,F2	.640	.409	.364	.001	.127	.722
Control variables, F1,F5,F4, F3,F2,F6	.643	.414	.365	.005	1.178	.280

In contrast to the impact of these six dimensions of HRD climate the overall perceived HRD climate had a much more statistical significant association with work engagement. Thus, it can be concluded here that overall climate perception was much more important for employee engagement than the individual factors.

Discussion

The work environment shapes the experience employees have of their work, and can drive the employee towards becoming engaged, or can push the employee towards disengagement. The work environment was therefore expected to play a critical role in determining employees' state of engagement. As Kahn (1990) highlights, it is "organizational contexts that enhance or undermine people's motivation and sense of meaning at work".

The above belief is well demonstrated by the present research where the presence of perceived human resource development climate within an organization related to high levels of work engagement. The results of the study can be explained on the basis of Kahn's (1990) contention where he stressed that the psychological experience of work is influenced by interpersonal, group, intergroup, and organizational factors and that it is this experience that drives people's attitudes and behaviors. These are psychological conditions that give the employee a sense of fit with what Kahn terms the "preferred self" in a job role: "People who are personally engaged keep their selves within a role, without sacrificing one for the other" (Kahn, 1990).

The study results can be supported by the literature which has shown that people's work environment – or more precisely, their perception of it – is related to their affective reactions to their work, such as job satisfaction and well- being (Hackman & Oldham, 1980; Warr, 2007).

All the six dimensions of HRD climate together accounted for substantial amount of variation in work engagement as can be seen from the results of the hierarchical regression analysis. However, independently only 'employee development' dimension was found to have significant influence on work engagement. This clearly implies that the organizations which implement practices that increase employee perceptions of all six factors of HRD climate should enjoy the greatest benefit in terms of increase in employees' work engagement.

Since 'employee development' was found be most significant predictor of work engagement so the efforts focusing on enhancing employee development like delegating authority to encourage juniors to develop handling higher responsibilities, personnel policies facilitating employee development, providing behavior feedback to employees and pointing of career opportunities could go a long way in enhancing employees' work engagement and hence can provide organizations an edge over their competitors. This is well supported by the research studies where positive feedback was reported to promote engagement (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009; Schaufeli & Salanova, 2007). As explained by Schaufeli and Salanova (2007) positive feedback enhances engagement by affecting the socio-emotional climate in organizations. In contrast negative feedback undermines engagement by comprising on employees' sense of psychological safety (Gruman & Saks, 2011).

In addition as was clear from the table 5, the factors namely 'Management's commitment & encouragement', 'autonomy & openness', 'performance appraisal & reward mechanisms' accounted for significant change in work engagement in addition to previously discussed 'employee development' dimension. Thus by creating a climate where employees are given adequate freedom to take decisions without waiting for the directions from supervisor and where they can openly discuss their problems with their superiors and supervisors without any fear would help engage employees in their work. Hackman and Oldham's (1980) job characteristics model highlights the importance of job autonomy for positive work outcomes. JD-R model also stresses upon the importance of autonomy as an important job resource and its significance for positive work attitudes and behaviors. In terms of Kahn's psychological conditions this could be due to the fact that autonomy and control over the job enhance the experience of psychological meaningfulness and safety thereby enhancing the engagement levels (Kahn, 1992). This is well supported by meta-analytic study of work engagement by Halbesleben (2010) where job autonomy was reported to have high estimated population correlation with engagement.

Fair performance appraisal based on objective assessment and not on favoritism and establishing the mechanisms for rewarding any good work or any contribution made by employees is another recipe to have engaged workers. This is in accordance with Kahn (1992) where he suggested that incentives are necessary to experience meaningfulness and suggested that formal and informal reward systems must support the psychological conditions that produce engagement. Gruman and Saks (2011) presented a model highlighting the importance of performance management process in promoting employee engagement which provides additional support for the present study results.

Lastly, the importance of management's commitment and encouragement could hardly be underestimated. Making efforts to identify and utilize the potential of employees, giving adequate opportunities to the employees to take risk and to try out what they have learnt from training, management's belief in development of people would make people realize that the management/ organization cares for them and is concerned about their development. As per the social exchange theory employees feel obliged to respond in kind to the resources they receive from the organization and repay the organization through their engagement level (Saks, 2006). Further, the results of the study supported the literature on the relationship of perceived organizational

support with several organizational outcome variables. For instance, Pati and Kumar (2010) reported that perceived organizational support partially mediated the relationship between occupational self efficacy and employee engagement. Finally the study results can be supported by meta-analysis on work engagement which supported the hypothesis that resources specifically social support, autonomy, feedback, positive organizational climate associate positively with engagement (Halbesleben, 2010).

Though the study reported an interesting pattern of relationships between HRD climate dimensions and work engagement, the dimensions of 'trust & team spirit' & 'employee initiative and top management's belief' contributed negatively to engagement. This comes as a complete surprise as it was contradictory to what was expected. This is in total contrast to the previous studies where trust and interpersonal and social relations (supervisor and co-worker support, and team climate) were reported to be important job resources resulting in positive work outcomes (Bakker & Demerouti, 2008; Chughtai & Buckley ,2009). For eg. Chughtai and Buckley (2009) in a study on school teachers and principal reported that increased trust in principal resulted in improved performance, increased identification with school and enhanced engagement. The findings require further examination to answer why some HRD climate factors contributed positively whereas some made negative impact on engagement.

Study Implications

Looking at the potential of work engagement to drive the business performance and to impact the bottom line outcomes, the findings of the present research imply that creating a climate of human resource development is a compelling intervention, which could provide competitive advantage to the firm. Inimitable nature of climate makes it a significant source of competitive advantage for a company (Neal & Tromley, 1995). Since the overall climate was found to be a more consistent predictor of work engagement as opposed the independent dimensions it becomes important for the organizations to focus on all the dimensions rather than paying attention to any one of it.

Companies should realize that the engagement levels are most likely to increase when employees have adequate development opportunities. This could be achieved by developing personnel policies conducive to the development of employees, by providing the employees with career opportunities and investing in career planning and career development initiatives. In addition, it is important to provide employees with appropriate autonomy and freedom to take the decisions to perform their tasks in an effective manner. So, while designing job considerable attention should be given to add the element of freedom and autonomy in it. The culture of openness should be created which is not a task of one day; it requires significant investment of time and other resources. Open discussions should be promoted which will help employees to overcome their fear and hesitation and hence will result in speedier solution of the problems. Also, the performance appraisal should be purely on the basis of merit and proper mechanisms should be in place to reward employees' contribution. This will help employees to have a sense of justice and equity and hence will result in enhanced engagement (Saks, 2006). Positive performance feedback is an important lever which when pulled could help organizations cultivate the fruit of engagement.

On the top of it the management's commitment to employee development in form of providing them the opportunities for experimenting, trying out new ideas, training etc. will help boost employees' confidence and self efficacy and hence result in building psychological capital (Gruman & Saks, 2011). This will help them cope better with the job demands and ultimately result in enhanced engagement levels and hence improved performance.

The above interventions are easier to say than implement as is rightly reported by Schein (as

cited in Riordan, Vandenberg, & Richardson, 2005) "The planned creation of a climate is one of the most difficult challenges an organization can undertake". A regular evaluation and monitoring of the employees perception about the HRD climate should be done to make sure that they are being given adequate attention and are received favorably as this can work wonders for the organization by resulting in enhanced engagement levels (Riordan *et al*., 2005).

Limitations and Scope for the Future Research

Several limitations of the study provide the opportunities for future research. First, the study was limited by the small number of organizations and difference in the number of employees sampled from each organization. Although an effort was made to control for the effects of number of employees, but relatively smaller number of organizations presents a serious limitation. This could be the reasons for some unexpected findings of the study. Therefore the findings of the study should be interpreted with caution. The future research should use a larger number of organizations from different sectors and industries to produce better results and to increase the generalizability of the study results.

Secondly, data are based on self-reports thus raising the concerns for common-method variance. Thirdly, the cross sectional nature of study did not allow for the causal inferences to be made. Longitudinal studies should be undertaken in future to address the issue of causality. Fourthly, the study was also limited by low reliability of one of the dimensions of HRD climate i.e employee initiative and top management's belief was found to be below the accepted level of 0.60. The future studies should attempt to address the above concerns.

Conclusion

Overall, this study provided the empirical evidence for the relationship between perceived human resource development climate and work engagement. This is one of the pioneer studies of its kind which explored the relationship between employee engagement and HRD from organizational climate perspective. Both organization and employees benefit from the presence of HRD climate in that it is associated with employee development and enhanced engagement, which again has been reported to have positive consequences for both organizations and employees (Halbesleben, 2010).

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