

HRD System in India: Conceptual Framework, Measure Development & Model Fit

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The authors suggested a theoretical framework with management concerns and management styles having definite impacts on HRD practices which in turn have positive impacts on productivity and adaptability of human resources. The validity of the four scales developed for the purpose was tested through the confirmatory factor analysis and the scales were found valid. Structural Equation Modeling (SEM) was exercised and the conceptual framework of HRD system was validated. The findings suggest that management professionals should understand that there exists a dire need to improve the level of HR effectiveness in all respects.

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Introduction

With reference to Indian organizations, two HRD conceptualizations have been highlighted—one by Rao (1986) and the other by Kandula (2001). Rao (1986) presented illustrative lists of HRD mechanisms, process variables, process outcomes and organizational effectiveness dimensions in a schematic presentation. Kandula (2001) developed a conceptualization of strategic HRD system which consists of two broad components, i.e., strategic HRD practices and strategic HRD facilitators. We combined both the frameworks and further enlarged the same by adding the influence of management styles on HRD practices. Further, we tested the validity and reliability of the four scales adapted for the purpose and finally we tested the model fit by applying Structural Equation Modeling.

Earlier research indicates that HRD system, processes and practices intended to incremental development of employees' competencies/commitment and change in organizational climate are positively related to various parameters of organizational performance such as em-

ployee turnover (Singh, 2000; Batt, 2002), increased productivity (Guzzo, Jettie & Katzell, 1985; Ichniowski, 1990; MacDuffie, 1995), payoff in terms of bottom-line financial performance (Radford & Kove, 1991; Flynn, 1994; Huselid, 1995), greater commitment (Agrawal, 2003; Gong, Law, Chang & Xin, 2009), higher safety performance (Zacharatos, Barling & Iverson, 2005), better service performance (Chuang & Liao, 2010) etc. Thus, in extant research, HRD system has been found positively associated with different outcomes that range from very proximal (i.e. productivity enhancement) to more distal (i.e. profitability). However, the mechanisms linking HRD and HR outcomes appear fragmented in earlier research. For such a linkage, various perspectives that have been frequently adopted by previous researchers mainly include behavioral perspective, human capital and resource based perspective, and holistic perspective. For example, Yeung & Berman (1997) have identified three paths through which HRD practices contribute to business performance: by building organizational capabilities, by improving employee satisfaction, and by shaping customer and shareholder satisfaction. Kandula (2001) made a survey of fifty-nine Indian organizations representing twenty different industries to study HRD practices and found moderate status with almost equal status to all the study variables (HRD mechanisms) in the studied organizations. In his study, all the study variables (HRD mechanisms) were found to have significant and positive correlation with each other. Jiang, Hu & Baer (2012) found that three dimensions of HR systems (i.e., skill-enhancing, motivation-

enhancing, and opportunity-enhancing HR practices) were positively related to human capital and employee motivation in different patterns in such a way that, compared with the other two HR dimensions, skill-enhancing HR practices were more positively related to human capital and less positively related to employee motivation. In addition, human capital and employee motivation mediated the relationships between three HR dimensions and voluntary turnover and operational outcomes, which in turn related to financial outcomes. In extant research, mainly additive approach has been adopted in order to measure the impact of HR mechanisms on HR outcomes; however, in recent studies (e.g., Gong, Law, Chang & Xin, 2009; Subramony, 2009; Batt & Colvin, 2011), it is argued that different sets of HR practices or different components of HR system may have differential effects on the HR outcomes.

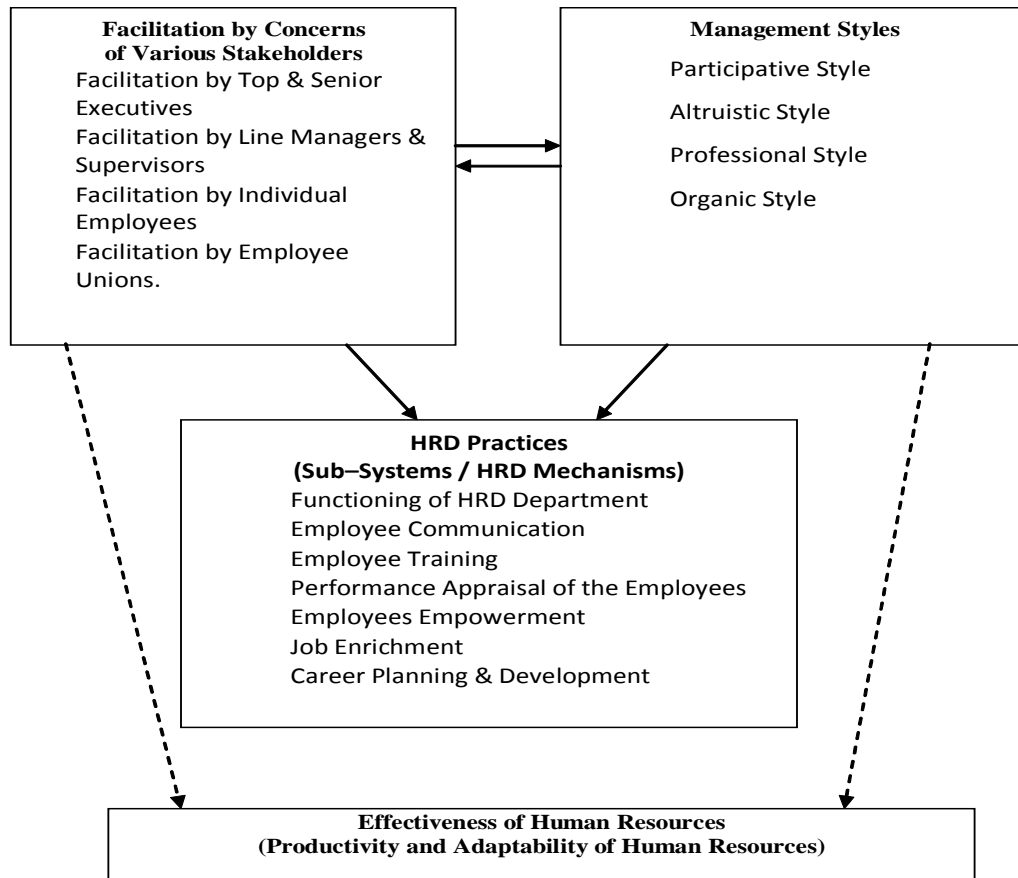
Conceptual Framework

We developed a conceptual framework of HRD system which is visualized in Fig. 1. A brief description of the key elements of such a framework is being presented here: (1) Functioning of HRD department, employee training, performance appraisal, job enrichment, career planning, employee communication, and employees empowerment are the key sub-systems / HRD mechanisms. (2) Concerns and active support of various stakeholders (viz., top management, line managers & supervisors, individual employees, and employee unions) facilitate the effectiveness of such sub-systems / mechanisms in practice. (3) Participative, altruistic, professional, and

organic management styles further facilitate the effectiveness of such sub-systems / mechanisms in practice. (4) Effective functioning of such HRD sub-systems / mechanisms has significant positive im-

pacts on productivity and adaptability of human resources. Obviously, productivity and adaptability of human resources are the important indicators of organizational performance.

Fig.1 Proposed Conceptual Framework of HRD System



Notes : (1) ‘————’ Dark Lines represent inter-linkage amongst the constructs
 (2) ‘.....’ Dotted Lines represent subservient relationship amongst the constructs

Key Variables Studied

HR Effectiveness: The key indicators of organizational performance include increments in productivity, adaptability, and commitment of organization’s human resources. If human resources

contribute to transferring inputs into outputs at the lowest cost and thus contribute to the achievement of organizational goals, the human resources will be termed as productive. In order to deal with new or changed situation and in this sense adaptability of human resources is

the employees' ability and self-efficacy by which they can execute courses of action required to deal with prospective situation and to contribute to introduce necessary changes in internal organizational climate in fine tune with the changes in external environment.

The most important objective of the HRD function is to create a 'learning environment' and 'enabling culture' in the organization

HRD Department's Functioning: It is expected from the HRD managers of a separate HRD department that they should work for the cause of HRD in close collaboration with other functionaries in the organization. The most important objective of the HRD function is to create a 'learning environment' and 'enabling culture' in the organization so that each member of the organization continuously learns and acquires new competencies and sharpen the existing competencies.

Employee Training: All organizations are expected to recognize that employee training is a strategic priority rather than a tactical response. For all benefits to be gained, it must be introduced as one of the integrated sub-systems of HRD. There is an increasing recognition that training is a critical system not only for individual effectiveness but also for enhancing organizational effectiveness leading to a more holistic approach to training in practice.

Performance Appraisal: Designing / re-designing performance appraisal sys-

tem and its effective implementation need to be considered as a top priority of the management and such processes should be handled with utmost sincerity. Efforts should be made to make the employees feel that the performance appraisal system is not only fair but also that it is being administered in an equitable manner.

Career Planning & Development: Career planning is the process by which one selects career goals and the paths to these goals; the major focus of career planning is on assisting the employees achieve a better match between personal goals and the opportunities that are realistically available in the organization; upward mobility may not be a reality for a large number of employees and hence career planning efforts need to pin point and highlight those areas that offer psychological success instead of vertical growth (Rao, 2000).

Job Enrichment involves three basic elements: elimination of de-motivating tasks from the job, horizontal stretching and vertical loading. Job enrichment involves adding more motivators to a job to make it more rewarding. Job becomes enriched when its nature gives job-holders more powers for planning, execution, control, evaluation and decision making regarding his / her work in an organizational setting

Employee Communication is at the heart of all organizational operations as it is the basis for understanding, co-operation and action. The very vitality and creativity of an organization depends upon the content and character of its communica-

tions. Effectiveness of employee communication in an organization can no longer be ensured by hunch, it requires due attention of HRD department and its managers in particular and all other functionaries of an organization in general.

Employee Empowerment is a psychological concept in which people experience four kinds of feelings: (i) feeling of self-determination which consists of freedom, independence and discretion over their work; (ii) feeling of meaningfulness for their work; (iii) feeling of self-efficacy which means their potential effectiveness on their jobs; and (iv) feeling of being active participants in their organizations (Spreitzer, 1995). Job characteristics such as high degree of autonomy, minimum bureaucratic control, high level of task identity, high degree of task significance; effective implementation of job enrichment programs; individual competencies; and organizational factors such as availability of relevant resources to the employees, learning orientation culture, trustworthy & risk taking leaders etc. generally inculcate the feeling of empowerment among employees.

Facilitation by Top Management: The top and senior executives should have fundamental concepts, assumptions and values regarding humanism, humanization, human processes and human resource development. Each person has unlimited potential to be developed / to develop the required dynamism;

Dynamic people can build dynamic organizations.

dynamic people can build dynamic organizations. Top and senior executives should facilitate this process by planning for it, by allocating organizational resources (including budget provisions) for the purpose, and by exemplifying an HRD philosophy that values human beings and promotes their development (Rao, 1986).

Facilitation by HRD Managers: Competent, committed and credible HRD managers can make others in the organizations capable, dedicated and creditable resources for achieving the goal of organizational excellence. For the purpose, HRD managers are expected to provide expertise on all the issues relevant to HRD to all concerned in the organization.

Facilitation by Line Managers & Supervisors: The HRD Department and line managers & supervisors have the joint responsibility which means they have mutually complimentary & supplementary roles to play in relation to development of the employees (Pareek and Rao, 1986).

Facilitation by Individual Employees: The development of the individual employees requires the following conditions to be satisfied: (i) they should perceive that acquiring new capabilities helps them in fulfilling their psychological needs; (ii) they should be aware of the capabilities they need to develop; (iii) they should perceive opportunities for acquiring such capabilities; (iv) they should have the means to assess their own growth; (v) they should enjoy the

process of growth itself (Pareek & Rao, 1986).

Facilitation by Employee Unions:

The leaders of employee unions should actively participate in workers' education programs and they should also involve themselves with enthusiasm in various HRD activities. Employee unions and their leaders need to redefine their agenda by making themselves accountable not only for the well-being of employees but also for the health of organizations.

Participative Management Style:

The most common form is group decision-making in which the group head does not act as a boss but coordinates and facilitates decision making by the group as a whole. This sort of decision making is based on free and frank discussion, sharing of information and views, generation of many alternatives and the gradual emergence of a consensus view to which everyone feels at least some commitment to the decision made because it has emerged through participation of all concerned (Khandwalla, 1995).

Altruistic Management Style: Altruistic is unselfish concern for other people's happiness & welfare as well as a feeling of compassion for others. Almost all the good management styles have the altruistic base but they are often affected by the organization centered considerations. 'Altruistic Management Style' goes beyond organization centered considerations to larger social concerns and the pursuit of larger ideals / social goals (Khandwalla, 1995). Such social

concerns / social goals may include affirmative action for workers' education, training, and development.

Organic Management Style: The managers who practice organic style believe (a) in providing multi-channel & multi-directional information network; (b) in creating widespread awareness of organization's goals, business strategies and action plans among employees at all levels; (c) in using cross-hierarchical and cross-functional teams; (d) in having flat organizational structure and low formalization; (e) in adopting decentralized decision making; (f) in creating a work environment for nurturing flexibility, transparency, openness, mutual understanding, experimentation, learning, development, creativity & innovation; (g) in exercising control not through positional power but rather by peer pressure and mutual interaction; and (h) in emphasizing greater commitment to the organization's progress, expansion & well being rather than to loyalty to the position holders.

Professional Management Style:

The managers who practice professional management style believe (a) in decision-making by formally educated & trained people; (b) in using experts extensively for relevant action researches before decision-making; (c) in giving prime importance to long-term planning and strategy formulation; (d) in formulation, internalization and following of code of professional ethics; (e) in using research and experience based high standardized work-methods and procedures; (f) in exercising control by systematic and sophisticated way; (g) in following an all-per-

vasive scientific approach for designing and implementation of business strategies ; and (h) in using ‘management information system (MIS)’ for putting all the above mentioned things into action.

Research Methodology

The research work was completed in six phases. In Phase I, review of literature was done. In phase II, keeping the key findings as emerged from the review of literature, a conceptual framework of HRD system as in Fig. 1 was developed. In phase III, measures for relevant variables that were readily available in the published literature were studied. In Phase IV, for measuring the HRD practices regarding various HRD mechanisms and facilitators as well as for measuring the practice of various management styles, already available Likert type scales were selected and later on adapted in consultation with a pool of experts for

the purpose of the study. In order to assess the perceived productivity and adaptability of the human resources, Human Resource Effectiveness (Productivity and adaptability) Scale was also developed afresh by the investigators. In phase V, reliability and validity of such measures were tested. In Phase VI, empirical assessment of HRD mechanisms and management styles as being practiced in India was done and the proposed conceptual framework was validated.

The primary data were collected through the administering of the relevant questionnaires to the three hundred executives belonging to both public sector and private sector organizations as well as both manufacturing and service providing organizations in India, the details of which are given in Table 1. Three hundred respondent executives belong to various strata of sex, age-group, qualification levels, and group of varying length

Table 1 Coverage of the Executives in the Sample Survey

Organizational Sector	No. of Executives in the Sample		Grand Total of Executives in the Sample
	Manufacturing Organizations	Service Provider Organizations	
Private Sector Organizations	80	50	130 (43.3%)
Public Sector Organizations	106	64	170 (56.7%)
Total	186 (62.0%)	114 (38.0%)	300

Table 2 Age and Gender Profile of the Respondents in the Sample Survey

Age Range (in years)	No. of Executives in the Sample		Total No. of Executives in the Sample
	Male	Female	
Between 25 to 35	73	10	83(27.7%)
Between 35 to 50	165	25	190(63.3%)
Above 50	24	03	27(9.0%)
Total	262 (87.3%)	38 (12.7%)	300

of work experience, details of which are given in Tables 2, 3 and 4.

Table 3 A Profile of Educational Qualifications of the Respondents in the Sample Survey

Qualification	Number of Executives in the Sample
Matriculation	07(2.3%)
Graduate Degree	163(54.3%)
Post Graduate Degree	70(23.4%)
Professional Diploma	60(20.0%)
Total	300

Table 4 A Profile of Length of Work Experience of the Respondents in the Sample Survey

Length of the Executives' Work Experience	Number of Executives in the Sample
Below 05 Years	58 (19.3%)
Between 05 to 10 Years	88 (29.37%)
Above 10 Years	154 (51.4%)
Total	300

The following four Likert type scales were used to make empirical assessment of the variables studied: (1) HRD Practices Scale; (2) HRD Facilitators Scale; (3) Management Styles Questionnaire; (4) Human Resource Effectiveness (Productivity and Adaptability) Scale. Likert type scales for measuring the HRD practices regarding various HRD practices (HRD mechanisms) and facilitators developed by Kandula (2001) were modified / adapted and the scale for measuring the practice of various management styles developed by Khandwalla (1995) was adapted for the purpose of the study. In order to assess the perceived productivity and adaptability of the human resources, Human Resource Effectiveness (productivity and adaptability) Scale was

also developed afresh by the investigators (Premkumar, 2007).

Reliability of various scales / sub-scales administered have been tested by the method of obtaining reliability coefficient i.e. Cronbach's Alpha (α) scores. Confirmatory Factor Analysis (CFA) was exercised for determining the construct validity of the above mentioned scales / sub-scales. Subsequently, structure equation modeling (SEM) was performed using the AMOS version 6.0 to validate the proposed model.

Reliability of the Measures

In order to test the reliability of various scales / sub-scales administered for the purpose of the study, reliability coefficient i.e. Cronbach's Alpha (α) scores have been obtained. The same are given in Table 5. Reliability coefficient i.e. Cronbach's Alpha (α) scores for various scales / sub-scales were found more than 0.6 (the minimum value that is acceptable as per standard norms) which indicates the reliability of all the measures used for the study.

Confirmatory Factor Analysis (CFA)

CFA was exercised for determining the construct validity of the above mentioned scales / sub-scales. The results of the same are given in Table 6. The acceptable standards for various values for statistical significance of a good model fit are given as: (i) Chi-square/df (cmin/df) - < 3 good; < 5 sometimes permissible, p - value for the model - > .05; (ii) CFI - > .95 great; > .90 traditional; > .80

Table 5 Results of Reliability Test of Various Scales

Scales	No. of Items	Mean Value	S.D.	Range of Item to Item Correlation	Cronbach's Alpha ($\hat{\alpha}$) Score
<i>HRD Practice (HRD Mechanisms)</i>					
<i>Sub-scales</i>					
Functioning of HRD Department	03	3.148	1.145	0.266** - 0.580**	0.724
Employee Training	05	3.170	1.166	0.097 - 0.522**	0.701
Employees' Performance Appraisal	04	3.156	1.180	0.012 - 0.378**	0.689
Job Enrichment	02	3.301	1.118	0.331** 0.531**	0.691
Career Planning	04	3.144	1.108	0.275** - 0.454**	0.667
Employee Communication	04	3.144	1.108	0.275** - 0.554**	0.782
Employee Empowerment	02	4.144	0.810		0.780
<i>HRD Facilitator Sub-scales</i>					
Concerns of Top Management	04	3.318	0.884	0.640** - 0.640**	0.654
Concerns of Line Managers & Supervisors	04	3.622	0.991	0.179* - 0.647**	0.647
Concerns of Individual Employees	06	3.369	0.995	0.007 - 0.547**	0.527
Concerns of Employee Unions	05	2.795	1.202	0.031 - 0.510**	0.796
<i>Management Styles Sub-scales</i>					
Participative Management Style	04	2.9254	.91137	0.230** - 0.684**	.871
Altruistic Management Style	04	2.8746	.91681	0.275** - 0.657**	.880
Professional Management Style	06	2.8112	.89339	0.311** - 0.649**	.895
Organic Management Style	05	2.8385	.90064	0.154 - 0.723**	.910
<i>Sub-scales Pertaining to Effectiveness of Human Resources</i>					
Productivity of Human Resources	04	3.477	0.856	0.350** - 0.593**	0.768
Adaptability of Human Resources	04	3.433	1.037	0.414** - 0.661**	0.805

Notes: ** Correlation is significant at 0.01 level (2-tailed). * Correlation is significant at 0.05 level (2-tailed).

sometimes permissible; (iii) GFI > .95; (iv) AGFI > .80; (v) NFI > .90; and (vi) RMR < .10. The results given in Table 6 indicate that the model fit values for all the constructs were found to match such acceptable standards. In view of such observation, it may be concluded that the construct of the various measures adopted for the purpose of the study could be validated well.

Structural Equation Modeling

Subsequently, structural equation modeling (SEM) was performed to test

the proposed conceptual framework. SEM fit indices and other relevant details of the SEM are given in Table 7 and Table 8 respectively. The regression values given on the arrows in Fig. 2 reveal the significant positive relationships between the key variables given in the proposed framework which are specified below: (i) Concerns of the various stakeholders and the selected four management styles were found to have significant impact on the HRD sub-systems (HRD mechanisms) as well as on HR effectiveness (productivity and adaptabil-

Table 6 Confirmatory Factor Analysis: Construct Validity Test of Various Scales(All the constructs are with initial model fit values)

Scales	No. of Items	Range of Standard Loadings	CFI	GFI	NFI	RMR	CMIN/DF
<i>HRD Practice (HRD Mechanisms)</i>							
<i>Sub-scales</i>							
Functioning of HRD Department	03	0.373 – 0.814					
Employee Training	05	0.214 – 0.801	0.989	0.983	0.948	0.031	1.249
Employees' Performance Appraisal	04	0.363 – 0.676	0.892	0.972	0.872	0.081	4.224
Job Enrichment	02	0.525 – 0.631					
Career Planning	04	0.456 – 0.694	0.96	0.938	0.932	0.19	0.340
Employee Communication	04	0.315 – 0.633	0.938	0.981	0.912	0.059	2.709
Employee Empowerment	02	0.781 – 0.820					
<i>HRD Facilitator Sub-scales</i>							
Concerns of Top Management	04	0.399 – 0.740	0.869	0.948	0.859	0.068	8.192
Concerns of Line Managers & Supervisors	04	0.166 – 0.771	0.935	0.969	0.921	0.051	4.512
Concerns of Individual Employees	06	0.176 – 0.723	0.945	0.973	0.885	0.054	1.676
Concerns of Employee Unions	05	0.559 – 0.829	0.936	0.953	0.915	0.077	3.629
<i>Management Styles Sub-scales</i>							
Participative Management Style	10	0.415 – 0.802	0.917	0.901	0.869	0.055	2.423
Altruistic Management Style	9	0.524 – 0.805	0.930	0.907	0.888	0.050	2.448
Professional Management Style	9	0.625 – 0.773	0.924	0.906	0.887	0.043	2.714
Organic Management Style	14	0.585 – 0.730	0.918	0.876	0.852	0.051	2.012
<i>Sub-scales Pertaining to Effectiveness of Human Resources</i>							
Productivity of Human Resources	04	0.553 – 0.787	0.94	0.997	0.995	0.009	0.376
Adaptability of Human Resources	04	0.614 – 0.872	0.959	0.966	0.950	0.041	4.873

ity of human resources); (ii) HR sub-systems (HR mechanisms) were also found to have significant impact on organizational effectiveness in terms of HR productivity and HR adaptability; and (iii) The Concerns of the various stakeholders and the selected four management styles were found to have impact on organizational effectiveness in terms of HR productivity and HR adaptability. The model also suggests that there is high covariance (0.99) of the HRD Facilitators between (a) the HRD Facilitators, i.e., facilitation by concerns of various stakeholders and (b) the management

styles. On the basis of results given in Tables 7- 8 and the regression values given on the arrows in Fig. 2, it may be inferred that the proposed model could be found fit and validated.

Table 7 Results of Structural Equation Modeling

x ² (d.f.)	911.732
P	.000
CMIN/ DF	3.08
NCP	798.732
RMR	0.081
RMSEA	0.224
CFI	0.864
NFI	0.678
GFI	0.962

Table 8 Model Summary

→	Estimate	S.E.	C.R.	P
HRD Facilitators (HRDF) → HRD Practices (HRD Mechanisms) (HRDP)	.910	.157	13.746	***
Management Styles (MS) → HRD Practices (HRD Mechanisms)	.885	.011	16.390	***
HRD Practices (HRD Mechanisms) → HR Effectiveness	.889	.314	8.920	***
HRD Facilitators → HR Effectiveness	.971	.261	7.134	***
Concerns of Top Management (HRDF) → HRD Facilitators (as a whole)	.873	.071	12.210	***
Concerns of Line Managers & Supervisor (HRDF) s → HRD Facilitators (as a whole)	5.270	.398	13.245	***
Concerns of Individual Employees(HRDF) → HRD Facilitators (as a whole)	1.000			
Concerns of Employee Unions (HRDF) → HRD Facilitators (as a whole)	.873	.071	12.210	***
Participative Management Style → Management Styles (as a whole)	.771	.045	17.306	***
Altruistic Management Style → Management Styles (as a whole)	.992	.044	22.462	***
Professional Management Style → Management Styles (as a whole)	.953	.050	18.909	***
Organic Management Style → Management Styles (as a whole)	1.000			
Functioning of HRD Department → HRD Practices (HRD Mechanisms) (HRDP) (as a whole)	.987	.110	8.966	***
Employee Training → HRD Practices (HRD Mechanisms) (HRDP) (as a whole)	.866	.098	8.857	***
Performance Appraisal → HRD Practices (HRD Mechanisms) (HRDP) (as a whole)	1.160	.133	8.690	***
Job Enrichment → HRD Practices (HRD Mechanisms) (HRDP) (as a whole)	1.187	.153	7.773	***
Career Planning → HRD Practices (HRD Mechanisms) (HRDP) (as a whole)	1.000			
Employee Communication → HRD Practices (HRD Mechanisms) (HRDP) (as a whole)	.972	.129	7.554	***
Employee Empowerment → HRD Practices (HRD Mechanisms) (HRDP) (as a whole)	1.083	.152	7.130	***
Productivity of Human Resources → HR Effectiveness	.661	.090	7.328	***
Adaptability of Human Resources → HR Effectiveness	1.000			

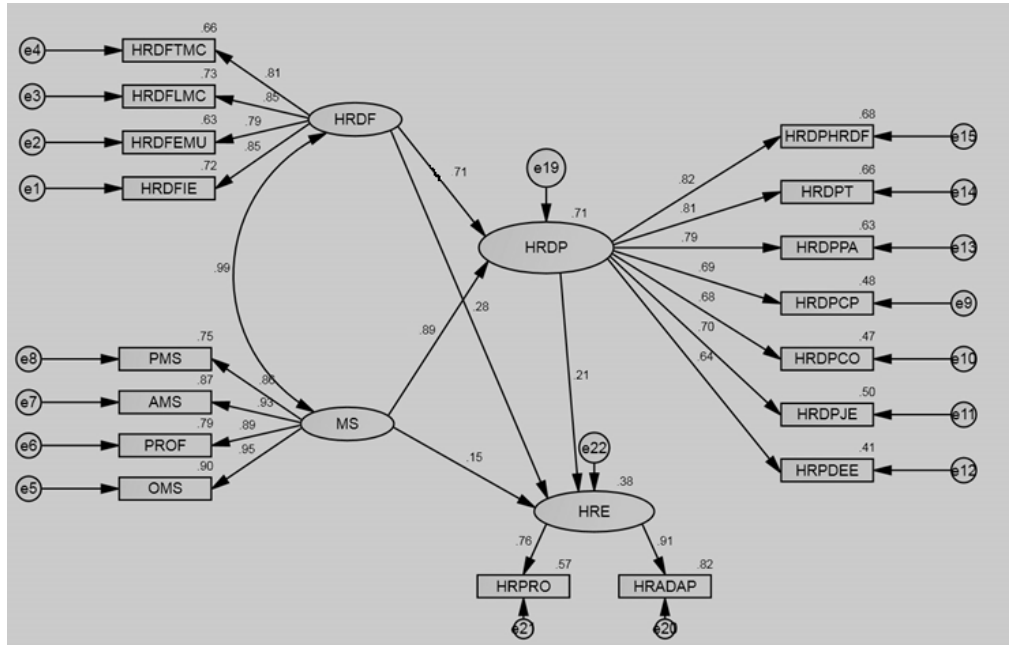
*** stands for statistically significant relationship at.01

Empirical Assessment

As indicated from the results given in Table 9, all the sub-systems (mechanisms) of HRD, viz., Functioning of HRD Department, Employees' Training, Performance Appraisal, Job Enrichment and Career Planning (except a very few, i.e. Employee Communication and Employees' Empowerment) were found to be moderately effective in Indian organiza-

tions across the various sectors. Concerns of various stakeholders have also been found to be at moderate level across the sectors as revealed in Table 10. However, the selected four management styles were found to be practiced to low extent in the various organizations (Table 11). Organizational Effectiveness in terms of both "productivity" and 'adaptability' of human resources was also found at moderate degree (Table 12). Correlation analysis

Fig. 2 Testing of Fitness of HRD System Model: Results of Structurat Equation Modeling



(Table 13) indicates that almost all the dimensions of the HRD sub-systems (mechanisms), concerns of the various stakeholders and the selected four management styles were found to be positively correlated. The above mentioned findings suggest that in the context of Indian organizations management professionals should understand that there exists a dire

need to improve the level of HR effectiveness and in order to achieve this goal, there exists an urgent need of continuous improvement in design and implementation of HRD sub-systems (HR mechanisms); Level of concerns of various stakeholders also needs to be enhanced; application of the four management styles also need to be further strengthened.

Table 9 The Extent of Effectiveness of the HRD Sub – Systems

Various Sub-systems of HRD	Mean Values (N=300)	S.D.	Extent of HRD System Effectiveness
Functioning of HRD Deptt.	3.09	1.01	Moderate Extent
Employee Training	3.00	0.69	Moderate Extent
Performance Appraisal	3.12	0.73	Moderate Extent
Job Enrichment	3.01	0.66	Moderate Extent
Career Planning	3.08	0.74	Moderate Extent
Employee Communication	2.79	0.82	Low Extent
Employees Empowerment	2.86	0.80	Low Extent

Table 10 The Extent to which the HRD Facilitators are Effective

Various Dimensions of HRD Facilitators	Mean Value (N = 300)	S.D.	Extent of Effectiveness of HRD
Facilitators			
Concern of Top Management	3.62	.66	Moderate Extent
Concerns of Line Managers & Supervisors	3.68	.74	Moderate Extent
Concerns of Individual Employees	3.53	.94	Moderate Extent
Concerns of Employees Unions	3.25	.62	Moderate Extent

Table 11 The Extent of Effectiveness to which the Four Management Styles Practiced

Management Style	Mean Value (N = 300)	S.D.	Extent of which the Four Management Styles Practiced
Participative	2.9254	.91137	Low Degree
Altruistic	2.8746	.91681	Low Degree
Professional	2.8112	.89339	Low Degree
Organic	2.8385	.90064	Low Degree

Table 12 The Perceived Degree of HR Effectiveness

	Mean Value (N = 300)	S. D.	Perceived Degree of Effectiveness
Productivity of Human Resources	3.5	.65	Moderate Degree
Adaptability of Human Resources	3.3	.77	Moderate Degree
Overall Effectiveness of Human Resources	3.4	.64	Moderate Degree

Directions for Future Research

Conceptual Framework of HRD System as presented and tested in this paper suggests that management concerns and styles have definite impact on HRD practices as well as on HR effectiveness which in turn contributes to incremental improvements in organizational effectiveness. A few earlier researches (e.g., Delery, 1998; Wright et al, 1994) generally indicate that HR systems / practices do not have direct impact on organizational effectiveness; rather they influence employees' behavior that ultimately has effect on organizational effectiveness.

However, how do the HR practices / systems impact on organizational effectiveness or organizational performance? This issue is still quite less studied in earlier research.

Park, Mitsuhashi, Fey & Bjorkman (2003) in their partial mediating model used employee skills, attitudes and motivation as mediating variables between HR systems and organizational performance. Paul & Anantharaman (2003) indicated that the intervening variables of employee competence, teamwork, organizational commitment and customer orientation affect the organizational perfor-

Table 13 Inter-correlations between Various HRD Sub-systems (HRD Mechanisms) and HRD Facilitators

HRDP and HRDF Dimensions	Functioning of HRD Dept.	Training Performance	Appraisal Enrichment	Job Enrichment	Comm-unication	Career planning	Workers Empowerment	Concern of Top Management	Concern of Trade Union	Concern of Individual Worker Managers	Participative Managers & Supervisor	Altruistic MS	Professional MS	Organic MS
Functioning of HRD Dept	.1													
Training Performance	.704(**)	1												
Appraisal	.683(*)	.996(**)	1											
Job Enrichment	.642(*)	.721(**)	.835(**)	1										
Communication	.739(**)	.646(*)	.761(**)	.805(**)	1									
Career Planning	.528(*)	.709(**)	.741(**)	.842(**)	.879(**)	1								
Employees	.862(**)	.611(*)	.731(**)	.886(**)	.953(**)	.791(**)	1							
Empowerment	.710(**)	.927(**)	.605(**)	.824(**)	.883(**)	.733(**)	.753(**)	1						
Concern of Top Management	.848(**)	.702(**)	.602(**)	.867(**)	.750(**)	.769(**)	.718(**)	.845(**)	1					
Concern of Trade Union	.665(*)	.805(**)	.820(**)	.709(*)	.747(**)	.832(**)	.934	.933(**)	.768(**)	1				
Concern of Individual Employees	.818(**)	.706(*)	.646(*)	.902(*)	.780(**)	.735(**)	.856(**)	.739(**)	.760(**)	.776(**)	1			
Supervisor	.716(**)	.661	.750(**)	.620(*)	.592(*)	.708(**)	.658(*)	.568(*)	.716(**)	.640(*)	.720(**)	1		
Participative MS	.755(**)	.474(*)	.497(*)	.541(*)	.393(*)	.471(*)	.746(**)	.400(*)	.460(*)	.494(*)	.767(**)	.759(**)	1	
Altruistic MS	.655(*)	.474(*)	.418(*)	.516(*)	.454(*)	.484(*)	.681(*)	.366(*)	.508(*)	.394(*)	.761(**)	.760(**)	.663(*)	1
Professional MS	.764(**)	.431(*)	.446(*)	.496(*)	.403(*)	.446(*)	.771(**)	.360(*)	.448(*)	.444(*)	.786(**)	.690(*)	.623(*)	.771(**)
Organic MS														

Notes: ** Correlation is significant at the 0.01 level (2-tailed). * Correlation is significant at the 0.05 level (2-tailed).

mance variables of employee retention, employee productivity, product quality, speed of delivery and operating cost, which then determine financial performance. Guest (2001) used employee satisfaction, commitment, and flexibility as mediating variables. Doty & Delery (1997) argue that HR practices influence organizational performance by creating a workforce that is skilled, motivated and empowered. Bowen & Ostroff (2004) argue that climate constitutes a key mediating factor in the HR-performance relationship. Jiang, Hu & Baer (2012) examined the effects of three dimensions of HR systems—skills-enhancing, motivation-enhancing, and opportunity-enhancing—on proximal organizational outcomes (human capital and motivation) and distal organizational outcomes (voluntary turnover, operational outcomes, and financial outcomes). Thus, the theoretical logic underlying the mechanisms linking HR and organizational performance remains fragmented. Therefore, “to further exploring me-

diating mechanisms through which HR practices influence organizational performance” needs to be focused in future research. Further, the earlier research highlights that most studies examining the relationship between HR and organization’s performance have been conducted in the US / UK cultures with the exception of a study carried by Katou & Budhwar (2006). They tested a mediation model to examine the link between HR and organizational performance in the Greek manufacturing context and found that the relationship between the HR systems of resource-development and reward-relations, and organizational performance, is mediated through the HR outcomes of skills and attitudes. They further found that HR outcomes partially mediate the relationship between HR systems and organizational performance. To fill such a research gap it is meaningful for future researchers to further explore mediators of the relationship between HRM and organizational performance in non-US / UK contexts also. The present study is a step in this direction and hence it makes a significant value addition to the body of knowledge in the area of HRD. Recent research suggests the heterogeneous effects of the components of HR systems on organizational performance parameters (e.g., Batt & Golvin, 2011; Gardner, Wright & Moynihan 2011; Gong, Law, Chang & Xin, 2009; Liao, Toya, Lepak, & Hong, 2009; Shaw, Dineen, Fang, & Vellella, 2009; Subramony, 2009). Different HRD sub-systems may have unique relationships with specific organizational performance indicators. HR

HR outcomes partially mediate the relationship between HR systems and organizational performance.

practices are not only distinct, but also operate via different pathways (Jiang, Hu & Baer, 2012). Therefore, additional research to explore the influence of the specific HR sub-system needs to be taken up to advance knowledge of the relationship between HR and organizational performance.

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