European Journal of Business and Management
ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online)
Vol 4, No.17, 2012

A Study of Human Process Research Practices Employed by the Construction Organisations in India

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Abstract

The best performing organisations always aspire to create good human resource development (HRD) climate in the teams. To achieve this state the management needs to employ good HR practices on a continuous basis across the organisation. For their effective implementation, management need to have information and feedback about the performance of existing processes and systems. The practice of collecting process data in a scientific manner and further applying it to diagnose the HR problems and organizational issues is a key aspect in 'human process research' .This study attempts to investigate the extent of such action research practices employed in construction organisations in India. Another objective of the study is to find out an association that exist between such practices score and the size of the organisations. For this study primary data has been collected through a structured questionnaire survey in which 100 professionals working in the construction organizations (Contractors, Consultants, and Developers) were selected by random sampling method. The data collected was analysed through the application of percentages and the one way ANOVA, Correlation technique using the statistical application. The study has revealed that only 41% of organisations are meeting the set expectations of implementing 'Human process research' practices for understanding the processes, systems and challenges in the construction organizations in India. The organisations were categorized into three classes for exploring the significant differences in the scores of practices. From this study it has been observed that there is no significant difference in the 'Human process research practices' among the small sized organization (upto 134 employees), medium sized organisations (up to 135-5000 employees) and the large sized organisations (more than 5000) employees. The study also revealed that there is no significant relationship exists in the scores of practices and the size of organisations.

Keywords: HRD, Human process research, HRD Climate, Organisational surveys.

1. Introduction

1.1 Construction Sector in India

The construction sector in India is witnessing tremendous growth from the beginning of this decade and has become a key sector contributing to the economic development of country. The industry is highly fragmented and is represented by over one lakh Class A-contractors, of which only 200 are large and corporate organizations. On recognition of this sector as a construction, industry it has become imperative to upgrade the skills and practices employed by the organizations involved into the business. It deploys huge manpower and is also labour intensive. The deployment of diversified and multiskilled workforce imposes a challenge to the Human Resources professionals managing manpower in an effective manner. To improve the working conditions of workforce, human resource functions need to adopt best practice standards for creating healthy work climate and working conditions for those involved. A good practice enhances internal capabilities of an organization to deal with the current and future challenges to be faced by an organization (T.V.Rao 2006).

1.2 Human Process Research Approach

To study the challenges and problems of existing system and processes, management initiates various actions like conducting the organizational surveys. The commonly adopted tool for this HR process research is conducting a series of organizational surveys. The timely information received from such activities by the management is vital in diagnosing the problems and challenges faced by the organization

Typically human process research dimension is investigated while mapping the HRD practices of any organisations. It includes the following key activities which are audited by HRD practitioners in understanding human processes

problems.

The following eight key activities were used as a practice parameters for this study

- Conducting surveys of leaning environment and HRD climate in the organization.
- Diagnosing the organizational health and work conditions through surveys
- Studying human processes and problems through surveys.
- Analysing exit trends, absenteeism, leaves and such other data for understanding human processes and problems.
- Studying leadership styles and related human processes.
- Providing feedback to employees on survey result.
- Experimenting with new methods for HRD.
- Conducting communication research (reports etc)

The above activities also fall into the domain of Organizational Development (OD) discipline. These activities, if conducted regularly will provide the important feedback about the level of HR research orientation of an organization. This is also termed sometimes as 'Action Oriented Research' activities. These are important OD interventions for building of understanding required to solve problem in Human Resource Development function.

Action Research is a process of systematically collecting data on a specific organization, feeding it back action planning and evaluating results by collecting and reflecting on more data. Data gathering techniques include everything from surveys and questionnaires to interviews and tests. The data is often evaluated and interpreted using advanced statistical analysis techniques.(www.referenceforbusiness.com/ small / op-qu / organizationdevelopment.html / visited 5/9/2012.)(Business 2nd Edition)

1.3 Practice of implementing as a HR intervention tool

Action research / or process research in Human Resources Development function acts like a diagnostic component in the organisational development (OD) process. When HRD practitioner implements the practice of process research by conducting survey or any other tool, it is also considered as a OD intervention', because in continuous process, the results of actions are measured and evaluated so that change agent drafts new action plans to effect new change.

2. Literature Study

Through process research HRD practitioner can measure the adequacy of various HRM systems, so that scope of implementation effort can be focused where required and enhance organization wide practice performance standards.(Hassan 2012)

The key to establishing an effective change and transformation in organisations lies in the early ages of assessment and diagnosis. It is just like medicine, if diagnosis is wrong, treatment will be ineffective (J. 2002)

Diagnosis provides information that allows fast reacting organisations to emerge, one that can deal proactively with changing forces; and, it is most critical element in the OD process (Brown D.R. and Harvey 2006).

As organisations can be considered as an entity (having interdependent subgroups and subsystem; (Johnstone 1979) described a seven step process for major organization development efforts.

These are:

- Clarification of whole Organisation objectives
- Data gathering and sharing (Secondary Data, Survey, Interviews, Observation)
- Diagnosis of organization strength and weakness
- Joint action prescription of interventions to correct weaknesses
- Implementation of OD interventions and
- Periodic progress review of results.

Data collection component of the OD process is vital for identification of the problem areas. Hence, it is essential to

carry out diagnosis process for understanding existing problem which paves way for solutions through effective analysis. The methods and models depend on the context in which it is adopted, type of problem and organization.

The trends of using survey as data gathering too is not only restricted to academic or research institutions, but it is also being used in applied research for either internal organizational development (OD) or human resource development (HRD) functions. As survey is easy to understand and have Universal appeal it is found that trend toward survey use appears to be going up rather than down. (Kraut and Saari, 1999)

3. Research Methodology

The investigation methodology included a questionnaire study that was administered to over 100 constructions professional in India.

Based on random sampling, over 100 respondents were selected from small to large size construction organisations in India.

Responses were collected personally by contacting respondents by telephone and personal meetings. The questionnaire used eight practice statements covering various aspects in the HR process research dimension. The questionnaire was rated on a six point Likert Scale (R.Likert 1931) and the participants were asked to the rate the level of performance of practice under the study. To augment the response rate an online survey tool was also used so that researcher could reach geographically distant or remote work locations of the construction professionals for data collection.

Total responses received were 109 but due to incomplete information related to the study 9 questionnaires were omitted from the analysis eventually making the total to 100.

The questionnaire respondents included were Senior Construction Managers, Project Managers, line and functional Managers employed in construction sector.

The study attempted to identify the extent to which ' Human Process research' practices are being employed in the Indian construction organisations. The construction organisations were grouped into three categories, namely small sized construction organisations (upto 134 employees) medium sized construction organisations(in the range of 135-5000 employees) and large-sized organisations (more than 5000 employees).

After this, further investigations were also made to analyse whether practice performance level (scores) were related to the size of the organisations. The categorization of construction organisations based on the size enabled researcher to make inter-category assessment to study if any significant differences in the scores exist among the organisations.

4. Hypothesis

There is a difference in the extent of human process research practices in the small size, medium size and large size constructions organisations.

5. Data Analysis and Interpretation

Based on the respondent's demographic data, the percentages were calculated as shown in the Table 1.1

Internal consistency of practice parameters was tested by calculating Cronbach alpha coefficients which were in the range of 0.93 to 0.94 for all the eight practice parameters. The scatter diagrams shown in the Chart 1.1 exhibits the strong association between practices parameters. George and Mallery has provided (2003) the following rules of thumb for Cronbach Alpha coefficients Score >0.9=Excellent, > 0.8= Good, 0.7=Acceptable, >0.6=Questionable, and the score below 0.5=Unacceptable. (George D 2012).Fig.No-1.1 Cronbach Analysis, illustrates this strong association of parameters.

5.1. Percentage Analysis

This has been carried out to understand the data distribution of respondents based on the demographic details. The study has revealed that out of 100 respondents, about 89% were men and about 8% were women. The undisclosed responses were 3%. About 71% of respondents were below 40 years of age, but the numbers of respondents in the age group of 'above 41 years was about 19%. 5% of respondents had completed diploma certification, while 61% had completed a Bachelor Degree and 34% had completed a Master degree. About 39 % of respondents had more than 10 years of experience. About 24 % of the respondents belonged to small-sized construction organization (10-15

employees) and 50 % respondents were from medium-sized construction organisations. 26 % of respondents were from large sized construction organizations (employing over 5000 employees).

Groups were drawn employing descriptive statistics for calculating the rating percentages for each type of organization (small, medium, large) and for investigating the data skewness and distribution. (Table 1.3)

5.2. Box Plot -ANOVA and Correlation Analysis

To study the data distribution and variation multiple box plots were drawn. All the respondents were grouped into three major categories on the size of the construction organisations.

The ANOVA test was employed to explore the difference level in the practices for all the three categories of organisations.

Correlation analysis was used to investigate the association in different categories of organisations. The correlation coefficient and P value denote the extent to which the dimension of human process research practices are associated to the size of organisations and also to determine if significant relationship exists. The value of the coefficient ranges from -1.0 to +1.0 (Burns & Bush,2005).In this study the correlation coefficient was found to be 0.20. It is evident that this is a weak associationship .

6. Findings & Recommendations

The study has revealed that the degree of practice performance in Indian construction organizations is below satisfactory level and needs improvement. The small sized organizations need to work more among all the three categories. It is observed that only 41% in organizations overall are performing up to the expectations in the practices implementation under study. It is also revealed that the extent of little or no practice is 21 %. The score for scope of improvement is indicated by 37% of the respondents. (Fig 1.2)

Based on the classification done on employee size, respondents have reported human process research practice scores as given in the Table 1.2. The total practice scores in the Small sized organizations was observed as 40% .The score in middle size organization was observed to be 46.94% and in the large size organizations it was 44.62%.The highest score was observed in the middle sized organizations which are 46.94%. Among the three categories of organisations middle sized organization have highest score, revealing a comparatively better practice existence than the small and large organisations. But researcher would like to note that there is no significant difference in the scores of all three categories. The ANOVA analysis revealed the P-Value 0.212 which was greater than the significance level 0.05 (Fig 1.4) .Hence null hypotheses was accepted leading to inference that there is no significant difference in the practices under study among all categories of organisations in India. However the improvement for reaching to at least 60 percent is required for all the categories. Over all there is a lot of scope for improvement for the entire category of organization so as to reach to benchmark score level of excellence (70-75%) as the score advised by T.V Rao studies (T.V.Rao 2006).

The correlation technique coefficients are observed to be negative (Fig 1.5) and P values observed are positive leading to the interpretation that there exist no relationship between two variables i.e. between human process research practice scores of organization and the size of the organization. Thus, hypothesis is rejected and not acceptable.

It is recommended that all the organization need to adopt this practice which will build up capability of OD & HRD practitioners to perform diagnosis in a pro-active manner.

Referring to the similar data collected for Middle East based construction organisations, the researcher, perceived that there are other dimensions connected to this practice like management commitment, quality orientation, career planning & work planning systems that exist in the organisation. The interdependence of these HRD subsystems dimensions cannot be ignored and further investigation is required for arriving at meaningful conclusions.

7. Conclusion

Thus, it can be concluded that there exist a high scope for all construction organizations for improving HR action research practice. The integrated systems approach as suggested by TVRLS studies (T V Rao 2001; T.V.Rao 2006) can be used as benchmark to improve the HRD processes. In case of small size construction organisations management leadership need to be aware of the best practice approach for sustaining in the competitive environment

to face global challenges. In large size organisations management commitment needs to be improved, so that the implementation success of practices can be measured by the improved HRD climate of organisations. This study has also attempted to emphasis that the size of the organization is not a limiting factor for deciding the extent of practice. It all depends mainly on the will and commitment of top management to implement such practices for developing effective HRD function thereby driving the organisational performance.

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Annexure

Table 1.1: Respondents Data

Respondents Data -Indian Construction Organisations			
Sr. No	**Variable**	**Nos**	**Percentage**
1	**Gender**		
	Male	89	89.0%
	Female	8	8.0%
	undisclosed	3	3.0%
2	**Age**		
	20-30	44	44.0%
	31-40	27	27.0%
	41-50	13	13.0%
	51-Above	6	6.0%
	undisclosed	10	10.0%
3	**Education**		
	Diploma/other	5	5.0%
	Bachelor	61	61.0%
	Masters	34	34.0%
	Doctoral	0	0.0%
	undisclosed	0	0.0%
4	**Years of Experience**		
	1-5	32	32.0%
	6-10	25	25.0%
	11-15	18	18.0%
	16-20	6	6.0%
	21-Above	15	15.0%
	undisclosed	4	4.0%
5	**Size of the organisation**		
	10-134 (Small size)	25	25.0%
	135-4999 (Medium size)	49	49.0%
	5000-Above (Large size)	26	26.0%
6	**Type of Organisation**		
	Contractor	56	56.0%
	Developer/ Private Investo	17	17.0%
	Consultant	21	21.0%
	Govt. Bodies	3	3.0%
	Other	3	3.0%

Table 1.2 Percentage Rating Score

Percentage Rating Scores Table 1.1							
Practice Level	No Practice(1)	Little Practice (2)	Needs Improvement	Meets Expectations (4)	Above Expectations (5)	Exceeds Expectations (6)	Group Scores
Overall Rating %	5	17	37	32	9	0	44.60
Percentage Rating-Small Sized	8.00	12.00	52.00	28.00	0.00	0.00	40.00
Percentage Rating-Medium Sized	6.12	16.33	28.57	34.69	14.29	0.00	46.94
Percentage Rating -Large Size	0	23.08	38.46	30.77	7.692	0	44.62

Table1.3.Descriptive Statistics

Descriptive Statistics: C14										
Variable	N	N*	Mean	SE Mean	StDev	Min.	Q1	Median	Q3	Max.
C14	100	0	6122	1522	15219	10	134	715	5000	100000

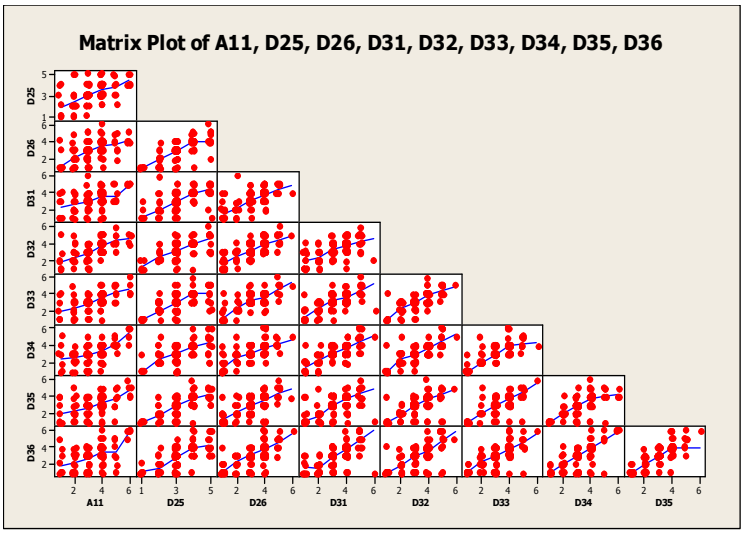

Figure 1.1 Cronbach Analysis

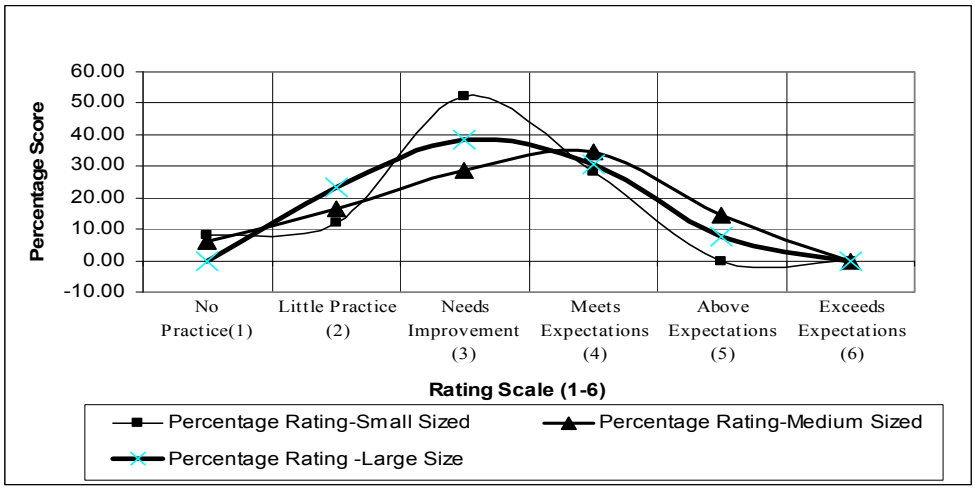

Figure.1.2 Percentage Scores (All Organisation)

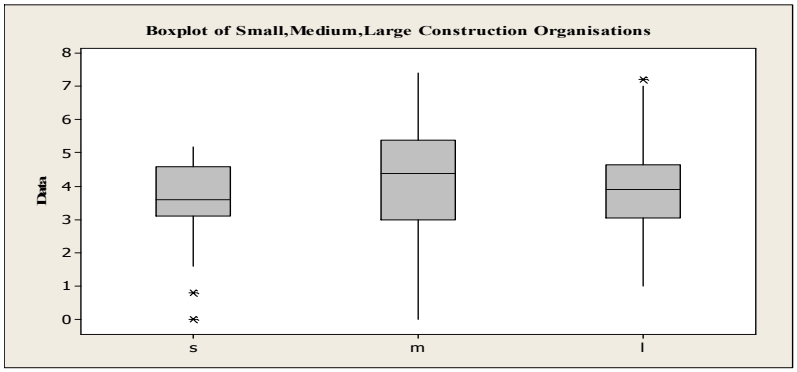

Figure 1.3 Box Plot

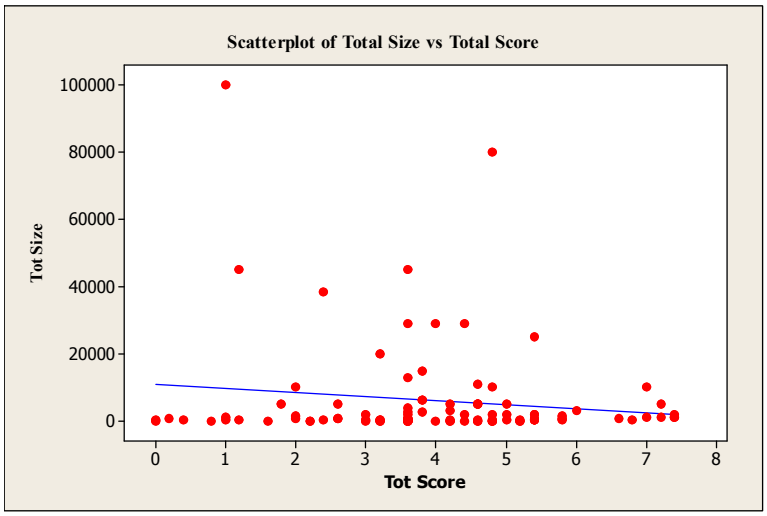

Figure 1.4 ANOVA Analysis

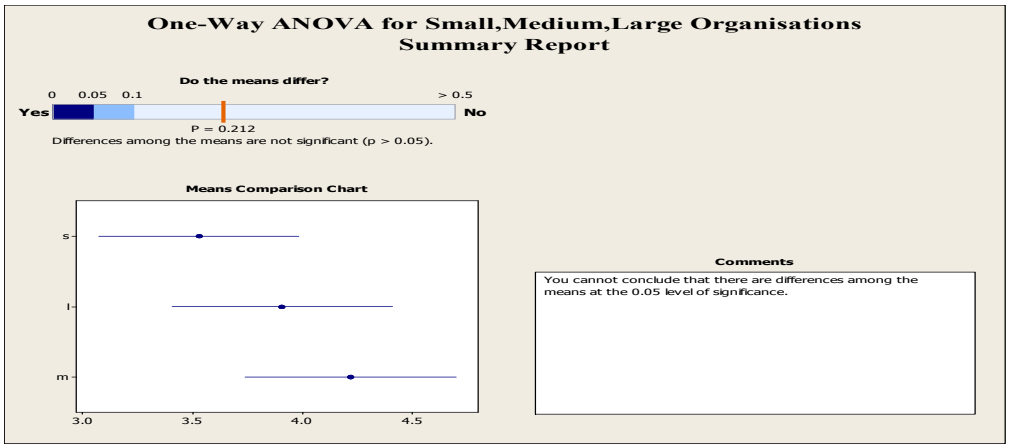

Figure 1.5 Correlation Analysis