Clustering IT Employees Based on Competency Levels - A Special Reference to Chennai

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ABSTRACT

HRDIVE has listed "Upskilling and the new talent pipeline" as 3rd in the Newsletter "10 trends that will shape HR in 2018". The article "The New Era of Learning and Development Is Here" emphasizes the importance of Learning and Development in the current knowledge economy where knowledge is power.The objective of this paper is to clustering IT employees based on their Competency levels and plan for training and development based on the cluster the Employee belongs to. A study was conducted on 200 employees working in IT Industry Chennai.

Keywords:*Competency, Competency Mapping, Human Resource Management, IT Industry.*

I. INTRODUCTION

The carrier path of the Employees and the Training and Development planned by Organizations should go hand in hand. Competency Mapping plays a key role in identifying the competencies required to perform a job and the proficiency level of the employees. Further analysis can be performed on the competency levels to make the training and development more efficient. This paper provides overview of competency, competency mapping and using competency levels for clustering the Employees for efficient training plan.

1.1 Objectives

1. To examine the Competency levels of IT Employees on various competencies

2. To cluster employees based on their competency levels

3. To suggest training plan based on the cluster

II. OVERVIEW OF COMPETENCY

Competency can be traced back to 3000 years ago. Arthashastra written by Chanakya, a minister of King Chandraguptha, contains the competency mapping and model required to perform the jobs effectively.Marrelli (1998)[3]has defined competencies as measurable capabilities which are required to perform job effectively. The

United Nations Industrial Development Organization describes competencies as skills, knowledge and attributes which allow a person to perform an activity or a task.

III. COMPETENCY MAPPING

Competency mapping Identifies competencies required to perform the job, analyzes the gaps and develops the competencies or closes the gaps identified. There are many ways of competency mapping. A competency model can be developed to mapping competencies.

Mily(2009)[4]in her study has split the competency development into four phases.

1. Competency mapping,

2. Competency diagnosis,

3. Competency development

4. Competency monitoring.

Celia & Karthick(2012)[6] in their Study have developed a competency matrix from the below 5 steps:-

1. Develop inventory of competencies

2. Classify and group competencies

3. Identify the proficiency level for each competency

4. Pin down the explanation for each competency and its levels

5. Determine the competencies required for each job or position

Employees' current competencies are evaluated against the desired competencies and the proficiency level as per the competency matrix. Action plans to bridge the gap between expected and the actual were prepared and executed.

IV. RESEARCH METHODOLOGY

The Research Design adopted was Empirical. The result was drawn based on the data collected. The data was collected with the help of Structured questionnaire. Competency level of employees was identified using five point scale 1 being the lowest and 5 being the highest.

V. DATA ANALYSIS AND INTERPRETATION

Based on the proficiency levels of employees, they can be classified into different categories. The competencies taken into account in this paper are Analytical thinking,Communication,Customer Service,Drive for results,FunctionalExpertise,Innovation,Knowledge,Leadership,Managerialability
,Motivation,Negotiations,Personal Effectiveness,Personal values,Process Management,   Self-development orientation,Social skills, Team effectiveness and Technical Competence. The results of K-means cluster is shown in the table 5.1.

The Cluster 2 shows the highest mean value for the majority of the competencies. The table 5.1 shows that the employees in the Cluster 2 have high skills on all the competencies except for Analytical Thinking, Innovation, Personal Values and Process Management and hence the cluster is termed as Skill-oriented. The employees in Cluster 1 have higher level of competency on the competencies Analytical Thinking, Innovation, Personal Values and Process Management. They are called Admin oriented. And the Cluster 3 Employees are moderate performers and they are called as duty-oriented. The ANOVA performed indicates that the differences in the mean level of competencies between the clusters are significantly different. The Training plan can be charted out for each cluster so that the individual needs can be fulfilled.

TABLE 5.1

Cluster Analysis - Classification of employees

Factors	Clusters		
	Admin-oriented	Skill-oriented	Duty-oriented
Analytical thinking	4.21	3.86	2.86
Communication	4.02	4.17	3.7
Customer Service	3.83	3.98	3.67
Drive for results	4.22	4.27	3.7
Functional Expertise	3.8	3.92	3.18
Innovation	4.05	3.86	3.84
Knowledge	3.72	3.97	3.06
Leadership	3.49	3.9	3.46
Managerial ability	3.74	3.86	3.34
Motivation	3.84	4.17	3.55
Negotiations	3.58	3.94	3.3
Personal Effectiveness	3.83	3.92	3.34
Personal values	4.49	4.17	3.78
Process Management	4.24	4.1	3.24
Self-development orientation	3.02	3.86	3.23
Social skills	3.4	3.92	3.56
Team effectiveness	3.78	3.96	3.59
Technical Competence	3.44	3.95	3.37

VI. RESULT

1. The employees are clustered into three groups based on their Competency levels

2. Skill-oriented employees have High mean value in most of the competencies. The training focus can be on the competencies in which they lag behind.

3. Admin-Oriented employees need to be given training on the competencies other than Analytical Thinking, Innovation, Personal Values and Process Management.

4. Duty-Oriented employees should be given training in all the competencies.

VII. CONCLUSION

In the IT industry up skilling of employees give competitive edge. The investments made on Training and developments are huge in IT industries as the industry is knowledge based. The Training plan should align with company's strategy. Competency Mapping is an ideal option for assessing the current level of employees so that the training plan can be arrived. Further doing Employee clustering will help the HR team to come up with more specific trainings.

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