

Assessing the Challenges in Competency-Based Hrm in the It Sector

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ABSTRACT:

The economies and corporations functioning in the twenty-first century are primarily based on the footing of knowledge and skills. Therefore, human resources (HR) must be regarded as a vital source of knowledge and skill in an organization and must be treated as human capital. Human Resources are the only asset that adds value to itself over the period of time and can also be nurtured effectively with appropriate training and development procedures. In today's world, the success of corporations' rests on the shoulders of human resources and that success can be manifested in the form of Competencies. Competent employees act as a catalyst in the smooth functioning of organizations and pave the way to achieve a competitive edge in the market.

To incorporate this, the most common approach to inculcate competencies in organizations is through Competency Mapping. As the global working environment shifts from mechanic to organic, organizations are required to use their human resources more strategically. Competency Mapping is a strategic HR policy that helps in monitoring the performances and development of human resources in an organization.

Keywords: *Competency Mapping, IT Sector, Competence, Competitive Advantage.*

JEL Classification: M54, O15, O21, O33.

1. CONCEPT OF COMPETENCE

For the past few decades, in human resource department (HRD) the term competency mapping can be frequently heard in corporate corridors. But the term has been defined through several perspectives thereby creating epistemological confusion. The two terms competence and competency are used interchangeably but there lay vast differences between them.

According to the Merriam-Webster dictionary, the meaning of the two terms, competence and competency is almost identical:

Competence (*noun*): the state of being competent; the state of having sufficient knowledge, judgment, skill, or strength.

Competency (*noun*): possession of sufficient knowledge or skill; specific area of competence.

Since the dictionary meaning of competence and competency is so similar it ought to create confusion. Those practicing research in the area constituted their meaning to suit their focused area. Consequentially, the study became a multi-faceted approach, which is one of the challenging aspects of the study. To clear out the confusion and lay grounds for conceptual underpinnings to the term competency, definitions are in order.

1.1 What is Competence?

Literature allegedly states that the word competence first emerged in the paper '*Motivation Reconsidered: The Concept of Competence*', written by American psychologist Robert W. White in 1959. (White, 1959) reviewed Competence as a concept of performance motivation. He discussed that competence is a motivational aspect that is required by mammals especially by human beings to interact with their environment. He defined competence as "*an organism's capability to interact effectively with its environment*".

However, the credit to bring the term Competence into mainstream studies goes to David C. McClelland, although it was initially introduced by Robert White. McClelland, Professor of Psychology at Harvard University wrote a seminal paper '*Testing for Competence Rather than Intelligence*' in 1973, in which he stated that there is a presence of a trait known as Competence, in humans that allows them to perform better (McClelland D. C., 1973).

1.2 What is Competency?

Despite the term being so internationally popular a well-acknowledged definition of competency is still lacking. Broadly it is defined as a combination of knowledge, skill, and attitude of a person that allows him/her to deliver superior performance in his job. (Hoffman, 1999) stated *“It remains the case that a precise and widely accepted definition of competences continues to elude both those researching the field and trainers themselves”*.

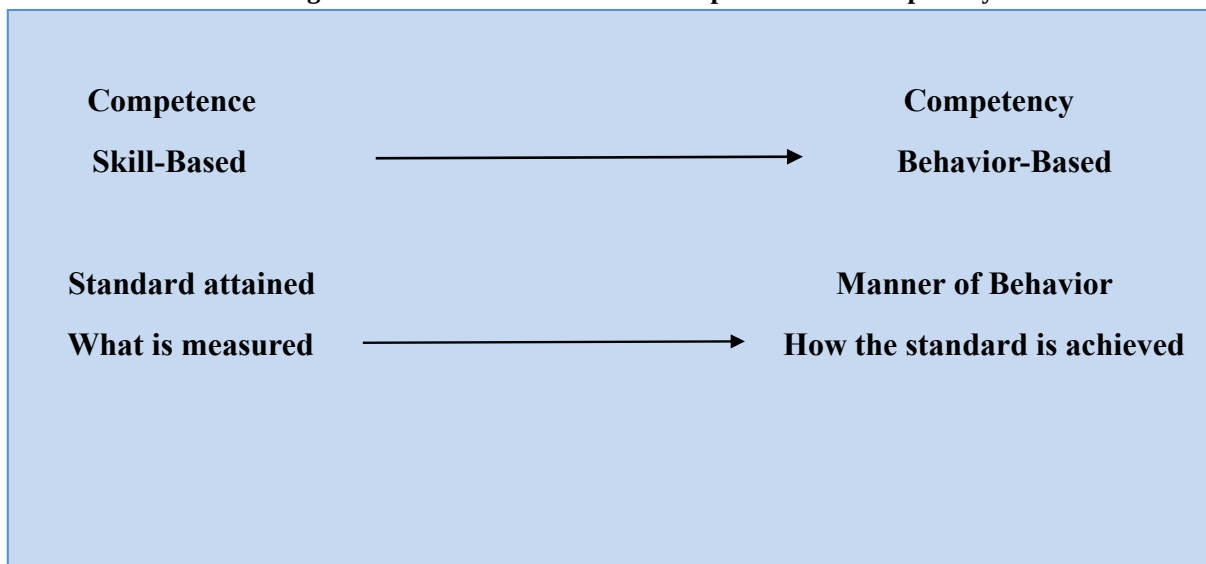
In their work, ‘Competence at work’ (Spencer & Spencer, 1993) defined competency as *“an underlying characteristic of an individual that is casually related to criterion-referenced effective and/or superior performance in a job or situation”*.

An ‘underlying characteristic’ is a fairly deep and enduring part of a person’s personality and can predict behavior in a wide variety of situations and job tasks. ‘Casually-referenced’ means that the competency causes or predicts behavior and performance. ‘Criterion-referenced’ means that the competency predicts who does something well or poorly, as measured on a specific criterion or standard.

The term Competency has been defined and characterized by many authors as it can be seen above. However, it became a widely used term in management in the human resource area using the catalyst of Richard Boyatzis’ book ‘The Competent Manager’ in 1982. (Boyatzis, 1982) in his book defined Competency as an *“underlying characteristic of a person which results in effective and/or superior performance in a job”*. He further expanded the definition with inclusion of *“a motive, trait, skill, aspect of one’s self-image or social role, or a body of knowledge which he or she uses”*.

In Figure 1 below, (Sanghi, 2007) has illustrated an interface between competence and competency by interpreting that competence in general is what an individual can do, whereas competency is how an individual does it.

Figure 1: The Interface between Competence and Competency



Source: (Sanghi, 2007)

From the above definitions, it can be seen that the term competency may be expressed as characteristics or traits that an individual needs to display or it can also be a standard of performance. Analyzing the several definitions pointed to:

- Competencies are the innate characteristic of an individual
- Competencies are a combination of knowledge, skills, and abilities
- Competencies lead to significantly better performance of a person on a job

2. COMPETENCY-BASED IN HUMAN RESOURCE MANAGEMENT

Competency-based HRM is all about using the conceptual framework of competency and the results of competency mapping to inform and improve organizational working and personnel development processes. Through Competency-based HRM, organizations are working continuously to align individual and organizational objectives. This alignment

will work only if the workforce is competent and motivated. Mapping helps in the identification of gaps that primarily is the reason for poor performances.

The development of Competency-based HRM started in the USA and some European nations in the early 1990s. It was mainly focused on individuals rather than on tasks. The approach was more labor-oriented rather than task-oriented. The primary aim of this approach was to emphasize employee competencies and make progress towards deployment of the process of Competency Mapping to other Human Resource Management Applications such as hiring, development, performance management, compensation, career management, and succession planning.

The two primary reasons to which Competency-based HRM can be attributed are:

- The application of competency mapping to hiring, training, appraisal, and other personnel processes will significantly help to increase the performance of employees.
- Competencies provide a basis to articulate corporate values so that organizations' requirements can be personified in HR practices and can be very well understood by their employees.

Competency-based HRM leverages the productivity of an organization and helps to find out the prominent differences between exemplary and average performers by narrowing the gaps. The journey of Competency-based HRM can only begin when human resource competencies are mapped, modeled, and assessed.

The factors that determine the selection choice is completely prioritized by the organization. Organizations can choose all or select areas to implement Competency-based HRM practices. Following are the broad areas where the Competency-based approach could be applicable:

- Job Analysis and Job Description
- Recruitment and Selection
- Training and Development
- Performance Evaluation and Appraisal System
- Compensation and Reward System
- Career Development and Succession Planning

3. OBJECTIVES OF THE STUDY:

- To study the extent of applicability of Competency-based HRM.
- To study the level and challenges in Competency-based HRM in the select sampled units in the IT Sector.
- To determine the road map/models for successful usage of the approach in select sampled units in the IT Sector.

4. RESEARCH DESIGN:

The present research is descriptive and exploratory in nature.

4.1 Data Collection: For the fulfillment of the objectives of the study, both primary and secondary sources of data have been used.

4.2 Sample Units: The proposed research targets were the subjects working in the select IT units. The survey was conducted on 3 select IT companies namely:

- Hindustan Computer Limited Technologies (HCL Tech)
- Larsen and Toubro Information Technologies (LTI)
- Birlasoft

The select three companies were chosen on a market capitalization basis and demographics such as, HCL Tech from the high-cap category with a market capitalization of 3 Lakh Crore (companies market cap); Larsen & Toubro Infotech from the mid-cap category with 8,000 Crore (companies market cap) and Birlasoft from small-cap category with 450 Crore (Economic Times).

4.3 Questionnaire Framework:

Table 1: Distribution and Collection of Questionnaire

Name of the Company	Circulated	Received	Rejected	Used
1. HCL TECHNOLOGIES	200	152	20	132
2. L&T INFOTECH	180	117	27	90
3. BIRLASOFT	150	104	34	69
TOTAL	530	373	81	291

Source: Primary Data

5. STATISTICAL SOFTWARE:

For the analysis of data Microsoft Excel and SPSS, version 25 has been used.

5.1 Statistical tools:

Statistical analysis of data was done using Friedman Rank Test and Chi-Square Test according to the stated objectives and hypotheses framed for the study.

6. HYPOTHESES OF THE STUDY

H₀: There is no significant difference between the highest mean ranks towards various challenges occurring in the implementation of Competency-based HRM.

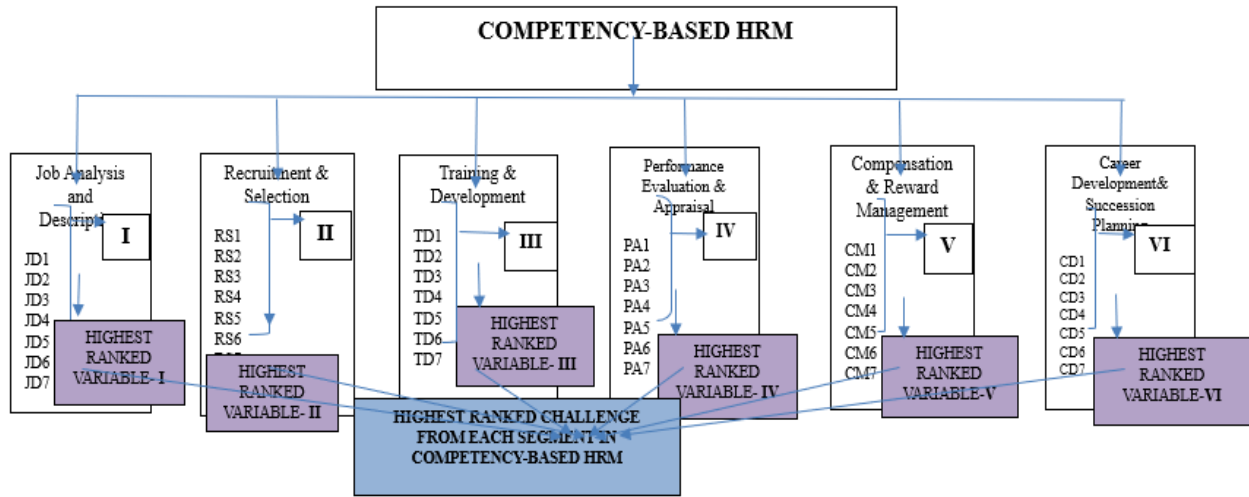
H_A: There is a significant difference between the highest mean ranks towards various challenges occurring in the implementation of Competency-based HRM.

7. PROPOSED RESEARCH MODEL:

A proposed research model regarding Objective 2 is discussed below with the help of a flowchart. The model analyzed the challenges occurring in the implementation of Competency-based HRM.

Seven variables from each category have been discussed and the respondents were asked to rate it from most important to least important. After analyzing the seven highest-ranked variable from each category, the derived variable was subsequently compared ranked and again which conclusively extracted the most significant challenge in the implementation of Competency-based HRM. For the sake of convenience, each variable has been allotted an acronym or a code in the model given below to acknowledge them. The codes are as follows:

- Job Analysis and Description (JD1-JD7)
- Recruitment and Selection (RS1-RS7)
- Training and Development (TD1-TD7)
- Performance Evaluation and Appraisal (PA1-PA7)
- Compensation and Reward Management (CM1-CM7)
- Career Development and Succession Planning (CD1-CD7)

Figure 2: Flowchart of the Research Model

Source: Author's compilation

7. FINDINGS:

7.1 FINDINGS PERTAINING TO DEMOGRAPHIC PROFILES:

Table 2: Summarized form of Respondents' Demographic Profile

S.NO.	DEMOGRAPHIC PARAMETERS	ITEMS	FREQUENCY	PERCENTAGE (%)
1.	COMPANY	HCL TECH.	132	45.36
		LTI	90	30.93
		BIRLASOFT	69	23.71
2.	GENDER	MALE	167	57.4
		FEMALE	124	42.6
3.	AGE	20-25 YEARS	135	46.4
		26-30 YEARS	42	14.4
		31-35 YEARS	92	31.6
		36-40 YEARS	11	3.78
		ABOVE 40 YEARS	11	3.78
4.	EDUCATIONAL BACKGROUND	GRADUATE	159	54.6
		POST-GRADUATE	115	39.5
		PhD	17	5.8
5.	EXPERIENCE	0-5 YEARS	175	60.1
		6-10 YEARS	77	26.4
		11-15 YEARS	26	8.9
		16-20 YEARS	2	0.68

		ABOVE 20 YEARS	11	3.78
6.	INCOME (P.A.)	UPTO 50,000 INR	2	0.69
		50,001-1,00,000 INR	10	3.43
		1,00,001- 5,00,000 INR	58	19.93
		ABOVE 5,00,000 INR	131	45.01
		PREFER NOT TO SAY	90	30.93

Source: Primary Data

Table 2 above shows the summarized tabular form of all the demographic data that has been collected from the respondents of the three select units. The details are discussed below:

- Based on the facts revealed by the analysis it was found that 57.40% of employees of all three companies were male while 42.60% of employees were found to be female.
- It was found that most of the employees of the companies fell under the age group of 20-25 years with 46.40% to be precise.
- As far as Educational Background was concerned majority of the employees were found to be graduates with 54.60% to be precise.
- With regards to the number of years of service, 60.10% of the employees had 0-5 years of experience.
- Most of the respondents were found to be in the above 5,00,001 per annum category of Salary with 45%.

7.2 FINDINGS PERTAINING TO OBJECTIVE 1: To study the extent of applicability of Competency-based HRM:

Table 3: Summary of extent of applicability of Competency-based HRM

S.N O.	EXTENT OF APPLICABILITY COMPETENCY-BASED HRM	COMPANY	FREQUENCY	PERCENTAGE %
1.	Job Analysis and Description	HCL Tech.	83	62.88
		LTI	47	52.22
		Birlasoft	30	43.47
2.	Recruitment and Selection	HCL Tech.	84	63.33
		LTI	58	64.44
		Birlasoft	40	57.97
3.	Training and Development	HCL Tech.	96	72.72
		LTI	57	63.33
		Birlasoft	46	66.67
4.	Performance Evaluation and Appraisal	HCL Tech.	81	61.36
		LTI	47	52.22
		Birlasoft	47	68.12
5.	Compensation and Reward Management	HCL Tech.	56	42.22
		LTI	30	33.33
		Birlasoft	23	37.68
6.	Career Development and Succession Planning	HCL Tech.	90	68.18
		LTI	53	58.89
		Birlasoft	42	60.87

Source: Primary Data

Table 3 above displays the summary of responses collected from the respondents regarding the extent of applicability of Competency-based HRM in the select three companies. The data clearly displayed the extent of applicability of Competency-based HRM in the three IT Companies. Responses collected showed how in-depth the process of Competency Mapping is present in these organizations and also highlights the area of HR where it still lacks some presence.

Conclusively, looking at the data gathered we can put forth the following findings:

- Regarding the company, HCL Technologies, 72.72% (96 respondents out of 132) of employees strongly agree that **Training and Development** was the pre-dominant area where Competency-based HRM was observed. **Training and Development**, which is considered the kingpin of competency-based HRM, where the employees accepted that Competency Mapping was prominently used.
- In the case of LTI, with employee percentage up to 64.44% (58 respondents out of 90) have strongly agreed that **Recruitment and Selection** was the dominant area where the presence of Competency approach was most prominent.
- Regarding Birlasoft, 68.12% (48 respondents out of 69) of employees strongly agree that **Performance Evaluation and Appraisal** was the area where Competency approach was mostly used.
- The proximity of Competency-based HRM can be seen through the immediate responses of the respondents. The responses reflect a positive impact on the presence of Competency Mapping in all the areas that have been mentioned in the survey questionnaire. The findings have a lot to do with the overall novelty of Competency-based application in the major HR areas. However, the variation in the results of its applicability being higher in one area of an organization as compared to others reflects some implementation problems.
- Thus, it can be concluded that the difference in the adaption of the Competency-based HRM can be attributed to the intensity of implementation of the Competency Mapping process, the budget of an organization, and the suitability of an organization. There still exists some areas where organizations do not use the approach of Competency-based HRM as often as other areas. Nevertheless, the extent of applicability of Competency showed that the approach was moving in the right direction but not necessarily with the same intensity as it was thought of.

7.3 FINDINGS PERTAINING TO OBJECTIVE 2: To study the level and challenges in Competency-based HRM in the select sampled units IT sector

HCL TECHNOLOGIES:

Following is the result of the ranking of variables to assess the challenges in Competency-based HRM using the Non-Parametric Friedman Rank Test:

Table 4:
Friedman Rank Test towards Challenges in implementation of Competency-based HRM

Challenges	Mean Rank	Ranking
Lack of knowledge regarding availability of various assessment tool	3.41	7
Difficult to prove return on investment of competency initiative to top management.	4.05	4
Interviewer's inability to recognize required behavioral indicators.	4.00	5
Ineffective feedback and support system	4.27	2
Difficult to determine evaluation and appraisal criteria and creation of rating instrument	4.32	1
Vulnerability to favoritism	3.81	6
Lack of open-mindedness of the workforce	4.14	3

Source: Computed Data

Table 4 above, displays highest ranking variable that denotes challenges in the implementation of Competency-based HRM. According to Friedman Rank Test, employees of HCL Technologies listed the above seven challenges as the most prominent ones. Following the research model proposed earlier in the figure 2, in the form of a flowchart all seven of the highest ranked challenges from each segment are analyzed again using Friedman Rank Test to arrive at the most significant challenge in implementation of Competency-based HRM.

H₀: There is no significant difference between the highest mean ranks towards challenges occurring in implementation of Competency-based HRM.

Table 4.1: Test Statistics

Test Statistics ^a	
N	132
Chi-Square	24.230
Df	6
Asymp. Sig.	.000
a. Friedman Test	

Source: Computed Data

Above table 4.1, outlines the result of Friedman Rank Test applicable on seven highest ranked challenges by way of test statistics that includes χ^2 value (Chi-square), degree of freedom (df) and significance level (Asymptomatic Sig.). The above Test Statistics revealed that Chi-Square value 24.230 is significant with 0.000 p value (at 6 degree of freedom) suggesting that there is statistically significant difference between the mean ranks of various challenges occurring during the implementation of Competency-based HRM in HCL Tech.

Hence, **H₀** is rejected and **H_A** is accepted.

Interpretation: Thus, it can be asserted that the challenges stated above have different impact on the implementation of Competency-based HRM as ranked above. However, following the research model proposed earlier in the figure 2, in the form of a flowchart, out of all the highest ranked variable from each segment that showed challenges in implementation of Competency-based HRM, it can be inferred that as per Friedman Rank Test, **‘Difficult to determine evaluation and appraisal criteria and creation of rating instrument’** is the most prominent challenge that eventually affected the implementation of Competency-based HRM.

LARSEN & TOUBRO INFORMATION TECHNOLOGIES

Following is the result of the ranking of variables to assess the challenges in Competency-based HRM using the Non-Parametric Friedman Rank Test:

**Table 5:
Friedman Rank Test towards Challenges in implementation of Competency-based HRM**

Challenges	Mean Rank	Ranking
Lack of knowledge regarding availability of various assessment tool	3.42	6
Competency approach undermines hard skills over soft skills	3.69	5
Substantial investment requirement	4.39	3
Workforce resistance	3.86	4
Fear of malice and collision of personal interest	4.99	1
Vulnerability to favoritism	3.04	7
Lack of well-trained assessors and assessment tools	4.60	2

Source: Computed Data

Table 5 above, displays highest ranking variables that denotes challenges in the implementation of Competency-based HRM. According to Friedman Rank Test, employees of LTI listed the above seven challenges as the most prominent ones. Following the research model proposed earlier in the figure 2 in the form of a flowchart all seven of the highest ranked challenge from each segment are analyzed again using Friedman Rank Test to arrive at the most significant challenge in implementation of Competency-based HRM.

H₀: There is no significant difference between the highest mean ranks towards challenges occurring in implementation of Competency-based HRM.

Table 5.1: Test statistics

Test Statistics ^a	
N	90
Chi-Square	78.247
Df	6
Asymp. Sig.	.000
a. Friedman Test	

Source: Computed Data

Above table 5.1, outlines the result of Friedman Rank Test applicable on seven highest ranked challenges by way of test statistics that includes χ^2 value (Chi-square), degree of freedom (df) and significance level (Asymptomatic Sig.). The above Test Statistics revealed that Chi-Square value 78.247 is significant with 0.000 p value (at 6 degree of freedom) suggesting that there is statistically significant difference between the mean ranks of various challenges occurring in the implementation of Competency-based HRM in LTI.

Hence, **H₀** is rejected and **H_A** is accepted.

Interpretation: Thus, it can be asserted that the challenges stated above have different impact on the implementation of Competency approach as ranked above. However, following the research model proposed earlier in the figure 2, in the form of a flowchart, among all the highest ranked challenges from each segment in implementation of Competency-based HRM, it can be inferred that as per Friedman Rank Test, '**Fear of malice and collision of personal interest**' is the most prominent challenge that affected the implementation of Competency-based HRM in LTI.

BIRLASOFT

Following is the result of the ranking of variables to assess the challenges in Competency-based HRM using the Non-Parametric Friedman Rank Test:

Table 6
Friedman Rank Test towards challenges in implementation of Competency-based HRM

Challenges	Mean Rank	Ranking
Lack of knowledge regarding availability of various assessment tool	3.68	6
Rigorous and complex process	4.07	3
Laborious process of competency identification for each job-family.	4.07	3
Ineffective feedback and support system	4.07	3
Determination of evaluation criteria and creation of rating instrument	4.33	1
Time-consuming and expensive process.	4.23	2
Lack of well-trained assessors	3.54	7

Source: Computed Data

Table above 6, displays highest ranked challenges in the implementation of Competency-based HRM. According to Friedman Rank Test, employees of Birlasoft listed the above seven challenges as the most prominent ones. Following the research model proposed earlier in the figure 2, in the form of a flowchart all seven of the highest ranked challenges from each segment are analyzed again using Friedman Rank Test to arrive at the most significant challenge in implementation of Competency-based HRM.

H₀: There is no significant difference between the highest mean ranks towards challenges occurring in implementation of Competency-based HRM.

Table 6.1: Test Statistics

Test Statistics ^a	
N	69
Chi-Square	11.518
Df	6
Asymp. Sig.	.074
a. Friedman Test	

Source: Computed Data

Above table 6.1, outlines the result of Friedman Rank Test applicable on seven highest ranked challenges by way of test statistics that includes χ^2 value (Chi-square), degree of freedom (df) and significance level (Asymptomatic Sig.). The above Test Statistics revealed that Chi-Square value 11.518 is significant with p value greater than 0.05 (at 6 degree of freedom) suggesting that there is statistically significant no difference between the mean ranks of various challenges occurring during the implementation of Competency-based HRM in Birlasoft.

Hence, H_0 is accepted and H_A is rejected.

Interpretation: Thus, it can be asserted that the challenges stated above have similar impact on the implementation of Competency-based HRM as ranked above. However, following the research model proposed earlier in the figure 2, in the form of a flowchart, out of all the highest ranked challenge from each segment in implementation of Competency-based HRM, it can be inferred that as per Friedman Rank Test that, '**Determination of evaluation criteria and creation of rating instrument**' is the most prominent challenge that eventually affected the implementation of Competency-based HRM.

Through this objective, we uncovered the most significant part of the study, which was to find out the challenges that occur in the implementation of Competency-based HRM. The novelty of the approach of Competency Mapping seems to be the biggest obstacle to its implementation. The challenges that have been assessed are all taken from several HR areas where the applicability of Competency Mapping is required. Since the approach is still evolving, major hurdles that come out in its implementation are from the rigid mindset of both the workforce and management. In most of the cases, it was found that lack of open-mindedness in the workforce, fear of malice and collision of personal interest, and determination of evaluation criteria and creation of rating instruments, were the challenges where most stress was given by IT employees. This shows the thinking of managers who still questions the applicability of Competency Mapping in an era where it is critical.

Alternatively, a few challenges that occur such as a rigorous and time-consuming process, a laborious process of competency identification for each job-family, and a time-consuming and expensive process also illustrate the primary challenges that are associated with the Competency Mapping procedure. In the IT sector it is imperative to identify critical professional competencies of the workforce and this identification of key competencies is not time-bound, is dependent on assessors' expertise, and is indeed an expensive process.

Our null hypothesis was that there is statistically no difference between the mean ranks of the various challenges that occur while implementing Competency-based HRM. During data analysis, we observed that in both large and mid-cap companies, the null hypothesis was rejected. This illustrates that, employees of HCL Tech and LTI mandated that there was a significant difference between different challenges proposed in each segment of Competency-based HRM.

But in small-cap companies, in some of the segments we failed to reject the null hypothesis. Hypothesis testing shows that employees of Birlasoft did not statistically differentiate between the challenges proposed in some segments of Competency-based HRM, such as in areas, finding a suitable assessment tool, job analysis and description, and career development and succession planning. The challenges in the implementation of Competency-based HRM are more acute in the low-cap company as there already exists a lack of awareness regarding the approach. As mandated by employees of Birlasoft, the focus of the company on time consumption and cost-benefit analysis rather than on mapping competence, reflects its priorities.

8. CONCLUSION:

To ascertain the challenges in Competency-based HRM in the IT sector has proved to be good to a greater extent. This study also helped to understand the gap between employee expectations and the actual working of the Competency-based HRM in select enterprises.

The research was taken up with the basic objective to understand the concept of Competency Mapping deeply along with to study several challenges surrounding its implementation across different organizations. Since the IT industry has a significance role in the country's performance, practicing Competency-based HRM as an inbuilt mechanism will surely promise success for these organizations. The study revealed that a significant number of employees working in IT companies were found in the age group of 20-25 and working for five or less than five years. The study showed that the male employees were higher when compared to female employees and most of them were found to be a Graduate.

However, the most challenging task is to ascertain the critical obstacles that occur while implementing Competency-based HRM in these organizations. An expensive and time-consuming process, lack of assessor's competence, vulnerability to favoritism, lack of proper assessment tools, ineffective feedback system, etc. came up to be some of the challenges that obstruct the applicability of Competency-based HRM.

All these observations lead to the inevitable conclusion that mapping of competencies by HR professionals and employers' along with open-mind set of company employees towards the approach play a crucial role in the success of an organization and there is a dire need that these challenges must be acknowledged and solutions must be implemented to ensure the long-run success of these organizations

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