

A Study on Digital Competency of It Employees with Special Reference to Chennai

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ABSTRACT

Information Technology is one of the fastest growing industries in India. It has become vital that the IT industries to have their employees equipped with the latest Technologies. Shifting to new technologies like cloud-based computing, Artificial Intelligence and IOT are the main focus of the IT Industries in the current Digital Era. This paper analyses the level of digital competencies employees possess and emphasizes the importance of Digital competency in IT Industry. A study was conducted on 200 employees working in IT Industry Chennai.

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

I. INTRODUCTION

Digital has been a driving force of change across industries; and the transition is accelerating. With the technology transformation towards the digital Era, it is important for the industries to make their employees competent enough to face the digital challenges. The competency mapping should be the key focus of any company. Every company should have defined roles and list of competencies including Digital Competencies required to perform the role. The list should be revisited often to meet the present-day scenario. This paper provides overview of competency, competency categories and importance of competency mapping in the digital era.

Objectives

1. To examine the Digital competency levels of IT Employees
2. To identify the gap in the Digital Competency of IT Employees
3. To suggest improvement plans

II. OVERVIEW OF COMPETENCY

McClelland (1973)^[1] has stated that traditional way of testing the intelligence may not predict the job success. Competencies are required to perform the job in an effective manner and use them as measuring tool which leads to success. Hayes (1979)^[2] has stated that the competencies are motive, trait, social role of a person which help the person to perform the job effectively. Albanese (1989)^[3] has mentioned competencies as personal characteristics that contribute to effective managerial performance.

Gaspar (2012)^[4] has mentioned the importance of competency as “Competency based selection method is healthy, structured and comprehensive. Candidates are evaluated on the competencies they need to demonstrate, when inducted into the organization. Performance management competency system diagnoses the future training and development needs of the employees and it helps the HR executives to assist employees in decisions like promotions and transfers.

III. COMPETENCY CATEGORIES

Krishnaveni (2013)^[5] has classified competencies as Core competencies and Professional or functional competencies. Core competencies are the individual inborn capabilities which are required for the success of the business. Whereas the professional or functional competencies are the competencies by the organization to meet its goals, vision and mission. She further classifies the functional competencies into three groups, namely behavioral competencies, threshold competencies and differentiating competencies.

Mily (2009) ^[6] in her article has classified the competencies into four types.

1. Employee core competency – competencies that reflect organizational vision and mission;
2. Managerial competency – competencies to manage a group of people; Technical competency – competencies that tie to specific areas, skills and knowledge to perform the required tasks. She also further classifies Managerial competency as Human competency and conceptual competency.
3. Personal Attribute – inherent personal characteristics which affect the efficiency.

Digital competency will come under the professional or functional competencies.

IV. RESEARCH METHODOLOGY

Empirical Research Design was adopted to draw the result based on the data collected. Structured questionnaire was used to collect the data. The structured questionnaire had 2 sections. First section was designed to collect the demographic. The second section was designed to collect the level of Digital competency. Competency level of employees was identified using five point scale 1 being the lowest and 5 being the highest.

V. DATA ANALYSIS AND INTERPRETATION

The Table 5.1 shows the Mean level (3.320) of Digital competency of Employees working in IT Industry in Chennai.

Table 5.1 Mean level of Digital Competency

Competency	Minimum	Maximum	Mean	SD
Digital	1.40	5.00	3.320	0.725

SD – Standard Deviation;

5.1 Gender vs. Digital Competency

From the Table 5.2, it is observed that the Mean level of Digital Competencies of Male employees (3.55) is more than the Mean level of Digital Competencies of Female employees (3.45).

Table 5.2 Mean level of Digital Competency by Gender

Competency	Gender	
	Male	Female
Digital	3.55	3.45

Mann-Whitney U tests was performed with the following hypotheses and the results are appended in the following Table 5.3.

- H₀: The mean level of competency on Digital Competency is same for male and female employees
H₁: The mean level of competency on Digital Competency is not same for male and female employees

Table 5.3 Test Results of Mann-Whitney U Test^a – Competency Level vs. Gender

Competency	Mann-Whitney U	Z	Asymp. Sig. (2-tailed)
Digital	28464	□1.135	.256

As p is greater than 0.05, the null hypothesis is not rejected at 5% level of significance and it is concluded that the mean level of Digital competency is same for male and female employees.

Qualification vs. Digital Competency

The mean level of Digital competency of UG qualified employees is 3.30 and the mean level of Digital Competency level of PG qualified employees is 3.33.

Table 5.4 Mean level of Digital Competency by Qualification

Competency	Qualification	
	UG	PG
Digital	3.30	3.33

Mann-Whitney U test was performed with the following hypotheses and the results are appended in the following Table 5.5.

- H_0 : The mean level of competency on Digital Competency is same for UG and PG employees
 H_1 : The mean level of competency on Digital Competency is not same for UG and PG employees

Table 5.5 Test Results of Mann-Whitney U Test^a – Competency Level vs. Qualification

Competency	Mann-Whitney U	Z	Asymp. Sig. (2-tailed)
Digital	28256	□ □ □612	.540

As p is greater than 0.05, the null hypothesis is not rejected at 5% level of significance and it is concluded that the mean level of Digital competency is same for UG and PG employees.

5.3 Designation vs. Digital Competency

The mean level of Digital competency of Team Leader is 3.49, the mean level of Digital Competency level of Manager is 3.02 and the mean level of Digital Competency level of Sr. Manager is 3.36.

Table 5.6 Competency Level vs. Designation

Competency	Designation		
	Team Leader	Manager	Sr. Manager
Digital	3.49	3.02	3.36

Kruskal-Wallis test was performed with the following hypotheses and the results are appended in the following Table 5.7.

- H_0 : The mean level of competency on Digital Competency is same for Team Leader, Manager, and Sr. Manager
 H_1 : The mean level of competency on Digital Competency is not same for Team Leader, Manager, and Sr. Manager

Table 5.7 Test Results of Kruskal-Wallis Test^a – Competency Level vs. Designation

Competency	Chi-Square	Df	Asymp. Sig.
Digital	19.132	2	.000*

a. Kruskal Wallis Test; b. Grouping Variable: Designation
 * Significant at 1% level;

As p is <0.01 null hypotheses of no difference in mean level of Digital competency is rejected and it is concluded that the level of Digital competency of employees in different Designation groups are not same. It is inferred from the Table 5.6 that the Mean level of Digital competency of Team Leaders is more compared to Manager and Sr. Manager.

5.4 Experience vs. Digital Competency

The mean level of Digital competency of employees with Below 7 years of experience is 3.58. The mean level is 3.32 for the employees with experience between 7 to 10 and it is 3.55 for the employees with experience above 10.

Table 5.8 Competency Level vs. Experience

Competency	Experience (in years)		
	Below 7	7 to 10	Above 10
Digital	3.58	3.32	3.55

Kruskal-Wallis test was performed with the following hypotheses and the results are appended in the following Table 5.9.

- H_0 : The mean level of competency on Digital Competency is same for employees with different experiences
 H_1 : The mean level of competency on Digital Competency is not same for employees with different experiences

Table 5.9 Test Results of Kruskal-Wallis Test^a – Competency Level vs. Experience

Competency	Chi-Square	Df	Asymp. Sig.
Digital	10.186	2	.006*

a. Kruskal Wallis Test; b. Grouping Variable: Experience

* Significant at 1% level;

As p is <0.01 null hypotheses of no difference in mean level of Digital competency is rejected and it is concluded that the level of Digital competency of employees with different experiences are not same. It is inferred from the Table 5.8 that the Mean level of Digital competency of employees with Below 7 years of experience is more compared to above 7 years of experience.

5.5 Size of the company vs. Digital Competency

The mean level of Digital competency of employees working in Small Company is 3.36 whereas the mean levels of Digital competency of employees working in Medium and Large companies are 3.42 and 3.48 respectively.

Table 5.10 Competency Level vs. Size of Company

Competency	Size of company		
	Small	Medium	Large
Digital	3.36	3.42	3.48

Kruskal-Wallis test was performed with the following hypotheses and the results are appended in the following Table 5.11.

- H_0 : The mean level of competency on Digital Competency is same for employees working in small, medium and large companies
 H_1 : The mean level of competency on Digital Competency is not same for employees working in small, medium and large companies

Table 5.11 Test Results of Kruskal-Wallis Test^a – Competency Level vs. Size of Company

Competency	Chi-Square	Df	Asymp. Sig.
Digital	3.067	2	.214

a. Kruskal Wallis Test; b. Grouping Variable: Experience; df = degrees of freedom

As p is greater than 0.05, the null hypothesis is not rejected at 5% level of significance and it is concluded that the mean level of Digital competency is same for employees working in small, medium and large companies.

5.6 Digital Competency Gap

The Table 5.12 shows the actual competency levels, expected competency levels and the gap in the competency level for employees of different designation.

Table 5.12 Actual vs. Expected competencies of different designation

Designation	Actual	Expected	Gap
Team Leader	3.49	5	1.51
Manager	3.02	4	0.98
Sr. Manager	3.36	4	0.54

The Fig. 5.1 shows the actual competency levels, expected competency levels and the gap in the competency level for employees of different designation. .

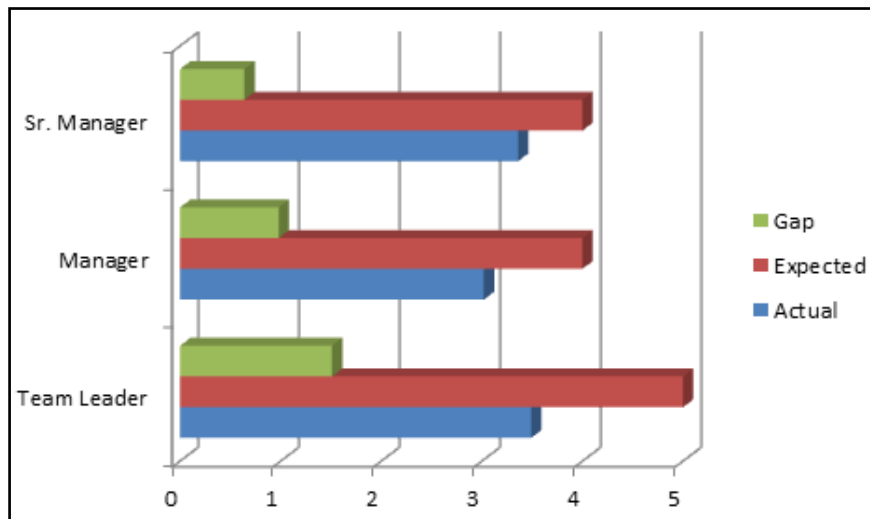


Figure 5.1 Gap in Digital competency

From the Fig. 5.1, though the Team leaders are having more mean level of digital competencies, there is a huge gap between the actual and expected competency level.

VI. RESULT

1. There is no significant difference in Digital competencies with respect to demographic variables Gender, Qualification and size of the company.
2. There is a significant difference in Digital competencies with respect to demographic variables Designation, Experience.
3. The Mean level of Digital competency of Team Leaders is more compared to Manager and Sr. Manager.
4. The Mean level of Digital competency of employees with Below 7 years of experience is more compared to other categories.
5. Though the Team leaders are having more mean level of digital competencies, there is a huge gap between the actual and expected competency level.

CONCLUSION

It is important for any IT company to accelerate the digital transformation and build digital competencies. The organizational structure needs to be mapped for digital readiness to make sure that it is totally aligned with the latest competency models. It is the responsibility of the HR team to develop and offer learning programs through different channels and make the employees take the ownership of their development plans. Building digital competency model helps the organization to identify the digital competencies and proficiencies required for the job. Once the model is built, the evaluation can be done and the development plans can be more aligned to bridge the gap.

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