

Study of Existing Core Competencies, Competency Map and Identification Training Needs for Employees in IT Industry in Chennai, India

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Abstract: The industry of Information and Technology in India has showcased phenomenal growth since the past two decades and Chennai is one of the major hubs for the industry. By virtue of the nature of the industry, the human resource is vital for the industry output which has recorded its contribution significantly for the GDP as well as the trade of export. Hence it is imperative to estimate the level of competencies of the employees and the desired level for a sustainable industrial growth which can contribute to the growth of the nation. The researcher has collected data for the subject analysis from an appropriate instrument of questionnaire method with a sample size of 500; non-probability sampling method. And analyzed statically by Percentage method, Confirmatory Factor Analysis, Chi-Square Value, Goodness of Fit Index, Comparative Fit Index, Standardized Root Mean Residual etc

Keywords: Core Competencies, Competency Mapping, Information Technology Industry, Training Needs.

I. INTRODUCTION

Globalization and modernization are creating an increasingly diverse and interconnected world. To make sense of and function well in this world, individuals need to master changing technologies and to make sense of large amounts of available information. They also face collective challenges as societies – such as balancing economic growth with environmental sustainability, and prosperity with social equity. In these contexts, the competencies that individuals need to meet their goals have become more complex, requiring more than the mastery of certain narrowly defined skills.

A competency is more than just knowledge and skills. It involves the ability to meet complex demands, by drawing on and mobilizing psychosocial resources (including skills and attitudes) in a particular context. Individuals need a wide range of competencies in order to face the complex challenges of today's industrial world, but it would be of limited practical value to produce very long lists of everything that they may need to be able to do in various contexts.

Competencies are becoming a frequently used and written about vehicle for organizational applications such as defining the factors for success in jobs and work roles within the organizations, assessing the current performance and future development needs of persons holding jobs and roles, mapping succession possibilities for employees within the organization, assessing compensation grades and levels to particular jobs and roles and selecting applicants for open positions, using competency based interviewing techniques. Thus, competency is a combination of observable and applied knowledge, skills and behaviours that create competitive advantage for an organization and it focuses on how an employee creates value and what he actually accomplishes.

II. FACTORS AFFECTING DESIRED CORE COMPETENCY AND IDENTIFYING THE TRAINING NEED

There are many factors affecting the desired core competency such as The socio-economic profile, existing core competencies, competency map and identification training needs for employees in it industry was analyzed and the results are hereunder presented.

II. A. Socio-Economic Profile Of Employees:

The socio-economic profile of employees of IT industry was analyzed and the results are presented as below.

Gender

The gender of employees of IT industry was analyzed and the results are presented in Table 1.

Table-1 Gender of Employees

Sl.No.	Gender	Number of Employees	Percentage
1.	Male	234	58.50
2.	Female	166	41.50
	Total	400	100.00

The results show that about 58.50 per cent of employees of IT industry are males, while the rest of 41.50 per cent of employees of IT industry are females.

II .B Age:

The age of employees of IT industry was analyzed and the results are presented in Table.2.

Table: 2. Age of Employees

Sl.No.	Age(Years)	Number of Employees	Percentage
1.	21-23 Years	133	33.25
2.	24-26 Years	223	55.75
3.	27-29 Years	44	11.00
	Total	400	100.00

The results indicate that about 55.75 per cent of employees of IT industry belong to the age group of 24-26 years followed by 21-23 years (33.25 per cent) and 27-29 years (11.00 per cent).

II. C. Educational Qualification:

The educational qualification of employees of IT industry was analyzed and the results are presented in Table 3.

Table: 3. Educational Qualification of Employees

Sl.No.	Educational Qualification	Number of Employees	Percentage
1.	B.E.	125	31.25
2.	B. Tech	89	22.25
3.	M.E.	54	13.50
4.	M.Tech	44	11.00
5.	M.C.A.	88	22.00
	Total	400	100.00

It is clear that about 31.25 per cent of employees of IT industry are B.E. graduates followed by B. Tech(22.25 per cent), M.C.A.(22.00 per cent), M.E.(13.50 per cent) and M. Tech(11.00 per cent).

II. D. Designation:

The designation of employees of IT industry was analyzed and the results are presented in Table.4.

Table4. Designation of Employees

Sl.No.	Designation	Number of Employees	Percentage
1.	Software Developer	54	13.50
2.	Software Designer	83	20.75
3.	Software Programmer	181	45.25
4.	Software Tester	60	15.00
5.	Software Analyst	22	5.50
	Total	400	100.00

It is observed that about 45.25 per cent of employees of IT industry are software programmer followed by software designer (20.75 per cent), software tester (15.00 per cent), software developer (13.50 per cent) and software analyst (5.50 per cent).

II. E. Working Experience:

The working experience of employees of IT industry was analyzed and the results are presented in Table.5.

Table: 5. Working Experience of Employees

Sl.No.	Working Experience	Number of Employees	Percentage
1.	1-6 Months	40	10.00
2.	6-12 Months	83	20.75
3.	1- 1.5 Year	107	26.75
4.	1.5- 2.0 Year	64	16.00
5.	2.0-2.5 Year	41	10.25
6.	2.5 – 3 Year	65	16.25
	Total	400	100.00

It is apparent that about 26.75 per cent of employees of IT industry have working experience of 1- 1.5 year followed by 6- 12 months(20.75 per cent), 2.5 – 3 year(16.25 per cent), 1.5- 2.0 year(16.00 per cent), 2.0-2.5 year(10.25 per cent) and 1-6 months(10.00 per cent).

II. F Monthly Income:

The monthly income of employees of IT industry was analyzed and the results are presented in Table 6.

Table: 6. Monthly Income of Employees

Sl.No.	Monthly Income(Rs.)	Number of Employees	Percentage
1.	Less than Rs. 20000	118	29.50
2.	Rs. 20001-30000	158	39.50
3.	Rs. 30001-40000	82	20.50
4.	More than Rs. 40000	42	10.50
	Total	400	100.00

The results show that about 39.50 per cent of employees of IT industry belong to monthly income group of Rs. 20001 - 30000 followed by less than Rs. 20000(29.50 per cent), Rs. 30001 -40000(20.50 per cent) and more than Rs. 40000(10.50 per cent).

II. G. Marital Status:

The marital status of employees of IT industry was analyzed and the results are presented in Table 7.

Table: 7. Marital Status of Employees

Sl. No.	Marital Status	Number of Employees	Percentage
1.	Married	223	55.75
2.	Unmarried	177	44.25
	Total	400	100.00

The results indicate that about 55.75 per cent of employees of IT industry are married, while, the rest of 44.25 per cent of employees of IT industry are unmarried.

II. H. Type of Family:

The type of family of employees of IT industry was analyzed and the results are presented in Table 8.

Table: 8. Type of Family of Employees

Sl.No.	Type of Family	Number of Employees	Percentage
1.	Joint	147	36.75
2.	Nuclear	253	63.25
	Total	400	100.00

It is clear that about 63.25 per cent of employees of IT industry belong to the nuclear family, while, the rest of 36.75 per cent of employees of IT industry belong to the joint family.

II. I Nativity:

The nativity of employees of IT industry was analyzed and the results are presented in Table 9.

Table.9. Nativity of Employees

Sl.No.	Nativity	Number of Employees	Percentage
1.	Urban	179	44.75
2.	Semi-Urban	133	33.25
3.	Rural	88	22.00
	Total	400	100.00

It is observed that about 44.75 per cent of employees of IT industry belong to the urban nativity followed by semi-urban nativity (33.25 per cent) and rural nativity (22.00 per cent).

III. EXISTING CORE COMPETENCIES OF IT EMPLOYEES

The existing core competencies of IT employees were analyzed and the results are presented in Table.10.

Confirmatory Factor Analysis (CFA) for Existing Core Competencies

The confirmatory factor analysis (CFA) was carried out for existing core competencies and the results are presented in Table 10.

Table10. Confirmatory Factor Analysis (CFA) for Existing Core Competencies

Existing Core Competencies	Chi-Square Value	P-Value	GFI	CFI	RMR	RMSEA
Technical	5.214	0.548	0.98	0.99	0.04	0.03
Behavioural	5.962	0.526	0.99	0.99	0.03	0.02
Communication	4.776	0.425	0.98	0.97	0.04	0.05
Interpersonal	4.480	0.624	0.99	0.98	0.05	0.04
Teamwork	4.472	0.542	0.96	0.98	0.04	0.03
Leadership	4.705	0.540	0.97	0.96	0.05	0.02
Intellectual	5.480	0.640	0.97	0.99	0.04	0.05
Problem Solving and Decision Making	5.152	0.598	0.99	0.98	0.03	0.06
Responsiveness	4.804	0.488	0.98	0.97	0.05	0.05
Social and Ethical	5.982	0.476	0.99	0.98	0.04	0.07

The results of CFA for existing technical competencies show an excellent fit with chi-square value of 5.214. The Goodness of Fit Index (GFI) is 0.98 and Comparative Fit Index (CFI) is 0.99. These GFI and CFI indicate perfect fit. The standardized Root Mean Residual (RMR) is 0.04 and Root Mean Square Error of Approximation (RMSEA) is 0.03 indicating excellent fit.

The results of CFA for existing behavioural competencies indicate an excellent fit with chi-square value of 5.962 and GFI and CFI are greater than 0.90 and RMR and RMSEA values are less than 0.1 indicate excellent fit. The results of CFA for existing communication competencies show an excellent fit with chi-square value of 4.776 and GFI and CFI are greater than 0.90 and RMR and RMSEA values are less than 0.1 indicate excellent fit.

The results of CFA for existing interpersonal competencies indicate an excellent fit with chi-square value of 4.480 and GFI and CFI are greater than 0.90 and RMR and RMSEA values are less than 0.1 indicate excellent fit. The results of CFA for existing teamwork competencies show an excellent fit with chi-square value of 4.472 and GFI and CFI are greater than 0.90 and RMR and RMSEA values are less than 0.1 indicate excellent fit.

The results of CFA for existing leadership competencies indicate an excellent fit with chi-square value of 4.705 and GFI and CFI are greater than 0.90 and RMR and RMSEA values are less than 0.1 indicate excellent fit. The results of CFA for existing intellectual competencies show an excellent fit with chi-square value of 5.480 and GFI and CFI are greater than 0.90 and RMR and RMSEA values are less than 0.1 indicate excellent fit.

The results of CFA for existing problem solving and decision making competencies indicate an excellent fit with chi-square value of 5.152 and GFI and CFI are greater than 0.90 and RMR and RMSEA values are less than 0.1 indicate excellent fit. The results of CFA for existing responsiveness competencies show an excellent fit with chi-square value of 4.804 and GFI and CFI are greater than 0.90 and RMR and RMSEA values are less than 0.1 indicate excellent fit. The results of CFA for existing social and ethical competencies indicate an excellent fit with chi-square value of 5.982 and GFI and CFI are greater than 0.90 and RMR and RMSEA values are less than 0.1 indicate excellent fit.

IV. CONCLUSION

The results show that technical, behavioural, communication and team work competencies are positively and significantly influencing the job performance of employees of IT industry at one per cent level, while, leadership and problem solving and decision making are also positively and significantly influencing the job performance of employees of IT industry at five per cent level. Therefore, the null hypothesis of there is no significant influence of existing core competencies on job performance of employees of IT industry is rejected.

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