



**A STUDY ON COMPETENCY MAPPING OF EMPLOYEES WITH REFERENCE TO MURUGAPPAN AND COMPANY**

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**Keywords:** Competency mapping, career development, emotional strength, occasional skill tests

**Abstract**

Human resource management is a process of bringing people and organizations together so that the goals of each other are met. Over the years, there is a change in the nature of jobs, which calls for future skill mapping through proper HRM initiatives. Indian organizations are also witnessing such a change which brings about the need for a multi skill development. There arises the need of competency mapping. Competency mapping identifies an individual's strengths and weaknesses in order to help them better understand themselves and to show them where career employees with reference to Murugappan and company. Research design adopted for the study is descriptive study with a sample size of 102. Tools used in the present study are percentage analysis, chi-square, correlation and regression analysis. From the study it is found that there is no association between work experience and high emotional strength. •So Use of occasional skill tests within the department could help the employees to keep a track of where exactly they stand and thus would help them put more development efforts need to be directed. The present study is about competency mapping of authentic ratings when asked to.

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**Introduction**

**Competency Mapping** is a process to identify key competencies for an organization and/or a job and incorporating those competencies throughout the various processes (i.e. job evaluation, training, recruitment) of the organization. A competency is defined as a behavior (i.e. communication, leadership) rather than a skill or ability.

In the modern complex world, which is characterized by scarcity of resources, it has become first and foremost object of every businessperson to use the available resources efficiently and in best way. The different resources include Men (manpower viz... labours and employees), Material (raw materials and fuel), Machinery (Plant, machinery and tools) and Money (Capital). To maximize returns and minimize wastage all these resources must be properly synchronized. Man power, both technical and managerial, is the most important resource of organization. No other factor can be utilized efficiently without manpower.

Thus, its mismatch with any of the factor will give rise to wastage of time, money and efforts, leading to loss of efficiency. Thus, it is very necessary to use this resource effectively. However, the most important resource is also the most difficult to manage. The reason for this difficulty is that no two persons are similar. Each person is been endowed with different qualities, skills, attitudes, motives, knowledge etc.

Moreover, these factors have an imperative impact on their performance. Thus, concisely one can conclude and come to a point that selection and recruitment of employees forms one of the crucial functions of an Organization. Human Resource Management performs the function of Recruitment, selection, training, development and remuneration. In addition, among these recruitment and selection functions seems to be the most difficult one as they deal with selection and appointment of employees. It is the efficiency of HRM in performing these two functions, which leads to overall efficiency in an organization. Thus, it is necessary to recruit the individual who is required by the organization. In other words, the individual who is best suited to do the job must be selected. It will be wastage of resources if a person who does not suit the job and cannot do the job efficiently is been selected. 8 Now, the question may arise that "How it is possible to find which person is suitable to do a particular job?" To determine the most apposite individual for their suitability for different functional tasks, currently most of the organizations are using different assessment techniques. Some of the popular techniques include personal interviews (personal interaction which forms means to identify skills and assess knowledge), Group discussions (with the purpose to discover leadership skills, communication skills and behavior in-group and with peer) and some written tests (these tests were conducted to assessing knowledge). Nevertheless, these methods have been found to have severe limitations. Different assessment approaches were developed and adopted including personality tests, thematic tests, psychometric tests etc... These tests have



improved assessment of candidate but still the reliability of the test result is not adequate to forecast effectiveness of the candidate for the job. It was found by the research conducted by Industrial and Organizational Psychologists that 'effectiveness of a person to carry out a job depends not only on a single or isolated factor but on "set of many different factors"'. Such set of factors that help the possessor to be proficient in a particular job is termed as Competency for the particular job.

### Review of literature

Competency-Competency is a skill, a personal characteristic or a motive demonstrated by various behaviors which contribute to outstanding performance in a job. Competency is a set of knowledge, skills and attitudes required to perform a job effectively and efficiently, which results in outstanding performance at work

**MILLER, et. al. (2010)** suggests, "there are two senses in which competence can be defined. The first is competence equating to performance, which is the ability to perform nursing tasks, and the second is competence as a 'psychological construct.'

**YUVARAJ (2011)** has explained the Job Competencies required to work in a manufacturing industry, professionals for knowledge, ability and attitude. Gap analysis was also made to a limited extend.

**MD.ISHTIAK UDDIN, et. al. (2012)** is of the view that Competency mapping can also be used for coaching and succession planning, considering the significance of Competency Mapping for individual and organizational growth, the present study was undertaken. Efforts have been made to elaborate the various competencies with minute parameters and to correlate them with the managerial competence level.

### Competencies in an organization

In order to carry out an organization's business in a superior manner, it needs to identify the competencies it's managers and all other employees should possess, further improve and practice to improve their job performance towards achieving it's goals.

#### Competency is not a task statement

Competency is a combination of an underlying capability, a characteristic or an ability with knowledge and skills that results in an effective performance. If competencies are improved, they will give still more effective or superior performance. Competencies are knowledge and skills statements and not task statements. For example: conducting the meetings is a task. In order to do so, one needs required competency.

Therefore, in this case the required competency is the combination of skills to make an agenda, to promote a healthy group process, to resolve conflicts, to manage time etc.

#### Inventory of competencies and developing competency matrix

1. An organization should develop an inventory of all the competencies it will need from its people in order to run its business as per its vision, mission, objectives and strategies.

2. These identified competencies then should be classified and grouped together accordingly. The following classifications can be made:

Behavioral or soft competencies.

Managerial competencies

Technical competencies/hard competencies

There could be other alternate ways for classifying competencies as given below:

Competencies for individual excellence or for managing self.

Competencies for interpersonal relations.

Managerial competencies which can be further classified as: 1. Organizational. 2. Role related and 3. People related Functional or technical competencies. Information related competencies.

3. Each competency, in turn, will have its levels of proficiencies. They should be identified.

4. Clear explanations of each level of each competency should be written down. These levels are given different labels by different organizations as per their needs. Some examples are given below:

In one organization, these proficiency levels for each competency are graded as:

oh-oh, so-so, good and great.

In other organization, they are termed as: baseline, collaborative productivity, ownership,

managing complexity and expert. In another organization, they simply put them as:

level 1, level 2, level 3 and level 4.

5. Also, for each job or each position which competencies of which proficiency level are required should be determined. This is called developing a "competency matrix".



### Competency mapping

Having created competency matrix for every job/position, the job incumbent's current Competencies are evaluated against the desired competencies and their level of proficiency. This is mapping the competencies of a job holder against the desired competency matrix for that job.

### Objectives of the study

To determine the association between work experience and high emotional strength

To correlate the optimum usage of time with that of individual capability in tracking the progress of activity.

To determine the extent of relationship between leadership and follow-up

### Need and scope of study

#### Need of the study

To comprehend how Competency Mapping is linked to various HR practices and to find the impact of Competency mapping on Individuals Growth

#### Scope of the study

A detailed study of Competency mapping has been made by studying various literatures on competency mapping and by referring various articles on the same. The effort is made to bring out effectiveness in various areas like recruitment and selection, training and development, performance management, skill development, training need identification, etc.

### Limitation of study

The limitations that were felt during the course of this project are as follows:

- Due to lack of time, only the manager and employee self-ratings could be taken. The project would have been much better in quality if the employee ratings for other employees were also considered like a 360 degree rating. It would have brought a lot more accuracy and authenticity to the ratings.
- It was observed that in many teams the complete seriousness of the exercise was not understood. This was reflected in the type of ratings that were provided.

### Research methodology

#### Research design

Descriptive research.

**Sampling technique** - Convenient sampling

**Sample size** - A sample of 102 was chosen among the population of more than 200 employees

#### Data collection techniques

The primary data - Structured Questionnaire and

The secondary data - books, journals, and company records, etc

#### Tools used for analysis

- Percentage Analysis
- Chi Square Analysis
- Correlation
- Regression

### Percentage analysis

**1.6.1.1. TABLE SHOWING AGE OF RESPONDENTS**

AGE (IN YEARS)	NO. OF RESPONDENTS	PERCENTAGE OF RESPONDENTS
20-25	59	59%
25-30	24	24%
30-35	16	16%
35 & Above	3	3%
<b>TOTAL</b>	<b>102</b>	<b>100%</b>

#### Interference:

From the above table, it is inferred that 59% of the respondents belong to age group of 21-25, 24% of age group 25-30, 16% of age group 30-35, and remaining 3% belong to age group 35 and above.



**TABLE 1.6.1.2. TABLE SHOWING GENDER OF RESPONDENTS**

AGE (IN YEARS)	NO. OF RESPONDENTS	PERCENTAGE OF RESPONDENTS
Male	59	58%
Female	43	42%
<b>TOTAL</b>	<b>102</b>	<b>100%</b>

**Interference**

From the above table, it is inferred that 58% of the respondents belong to male, and remaining 42% belong to female.

**TABLE 1.6.1.3 TABLE SHOWING QUALIFICATIONS OF RESPONDENTS**

QUALIFICATION	NO. OF RESPONDENTS	PERCENTAGE OF RESPONDENTS
Diploma	41	40%
UG	48	47%
Others	13	13%
<b>TOTAL</b>	<b>102</b>	<b>100%</b>

**Interference**

From the above table it is inferred that 41% of the respondents are Diploma holders, 48% are UG graduate and remaining 13% of respondents are others

**TABLE 1.6.1.4 TABLE SHOWING WORK EXPERIENCE OF RESPONDENTS**

EXPERIENCE (IN YEARS)	NO. OF RESPONDENTS	PERCENTAGE OF RESPONDENTS
Less than 1 Year	26	25%
1-5 years	28	27%
6-10years	27	27%
Above 10 years	21	21%
<b>TOTAL</b>	<b>102</b>	<b>100%</b>

**Interference** From the above table it is inferred that 26% of the respondents have Less than 1 year experience, 28% have 1-5 years, 27% have 6-10 years and 21% have above 10 years of experience in the organization.

**TABLE 1.6.1.5 PERSONAL COMPETENCIES**

PARTICULARS	NO OF RESPONDENTS					TOTAL
	5	4	3	2	1	
<b>Rate Information</b>						
<b>Reliability:</b> Gain trust and confidence by interacting with fairness, honesty and truthfulness	20	20	26	24	12	<b>102</b>
<b>Self- sufficiency:</b> Exercises the professional duties without assistance	18	29	24	13	18	<b>102</b>
<b>High emotional strength:</b> Relaxed & balanced. Maintain effectiveness even under pressure	26	32	16	17	11	<b>102</b>

**Interference**

The above data and chart infers that the respondents receive information about personal competencies.



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TABLE 1.6.1.6. KNOWLEDGE LEVEL COMPETENCIES

PARTICULARS	NO OF RESPONDENTS					TOTAL
	1	2	3	4	5	
<b>Rate Information</b>						
<b>Organizational awareness:</b> Have wide knowledge about the organization, its departments and functions	20	18	26	24	14	<b>102</b>
<b>Organizational awareness:</b> Have wide knowledge about the organization, its departments and functions	18	29	24	13	18	<b>102</b>

**Interference**

The above data and chart infers that the respondents receive information about knowledge level competencies.

TABLE 1.6.1.7. JOB RELATED SKILLS/COMPETENCIES

PARTICULARS	NO OF RESPONDENTS					TOTAL
	1	2	3	4	5	
<b>Rate Information</b>						
<b>Presentation skill:</b> Able to present ideas, concepts, plan and procedures clearly to the target group	35	26	14	16	11	<b>102</b>
<b>Negotiation skill:</b> Discuss and share opinions so as to arrive at a constructive agreement.	29	23	12	25	13	<b>102</b>
<b>Accuracy in communication:</b> Listen to others and express the idea with clarity and precision	25	18	12	27	20	<b>102</b>

**Interference**

The above data infers that the respondents belong to job related skills / competencies.

TABLE 1.6.1.8 SKILLS AND ATTRIBUTES

PARTICULARS	NO OF RESPONDENTS					TOTAL
	1	2	3	4	5	
<b>Rate Information</b>						
<b>Thinking strategically:</b> Understanding internal and external factors that impact learning and performance in organization	23	29	15	21	14	<b>102</b>
<b>Analytical, problem solving and decision-making skill:</b> Weigh the pros and cons in an uncertain and ambiguous situation, calling for a high level of judgment or taking appropriate decision without much delay	68	14	12	0	8	<b>102</b>
<b>Social skills and abilities:</b> Develop, negotiate, resolve conflict, persuade, use and respond to authority and power so as to get things done	51	24	15	10	2	<b>102</b>
<b>Emotional Flexibility:</b> Deal with emotional stress and strain that arises as consequence of working situations of authority, leadership, power, targets and deadlines	56	18	20	5	3	<b>102</b>
<b>Pro-activity:</b> Respond to the needs of the instant situation, but while making such a response consider the long-term aims and goals and the impact of immediate decision	39	26	19	12	6	<b>102</b>

**Interference**

The above data infers that the respondents belong to skills and attributes.



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TABLE 1.6.1.9. META QUALITIES

PARTICULARS	NO OF RESPONDENTS					TOTAL
	1	2	3	4	5	
<b>Rate Information</b>						
<b>Creativity:</b> Come up with unique ideas or solutions – either one's own ideas or ideas from another source	56	18	20	7	0	102
<b>Mental agility:</b> Grasp problems quickly, think about several things at once, understand the whole situation quickly and 'think on ones feet'	29	53	14	0	6	102
<b>Applying Business Acumen:</b> Understanding the organization's business model and financial goals; using business terminology when communicating with others	51	24	15	12	0	102

**Interference**

The above data infers that the respondents belong to Meta qualities.

TABLE 1.6.1.10. VISION AND PURPOSE

PARTICULARS	NO OF RESPONDENTS					TOTAL
	1	2	3	4	5	
<b>Rate Information</b>						
Sees new possibilities to take the organization to a higher realm	32	16	26	16	12	102
Optimistic and motivates. Sees everything with a positive outlook	29	26	23	20	4	102

**Interference**

The above data infers that the respondents belong to vision and purpose.

TABLE 1.6.1.11. DEVELOPING PEOPLE

PARTICULARS	NO OF RESPONDENTS					TOTAL
	1	2	3	4	5	
<b>Rate Information</b>						
Assembles strong teams with empowerment	28	25	21	15	13	102
Communicates effectively with people	34	17	31	11	9	102

**Interference**

The above data infers that the respondents belong to Developing people.

TABLE 1.6.1.12. VALUES AND ETHICS

PARTICULARS	NO OF RESPONDENTS					TOTAL
	1	2	3	4	5	
<b>Rate Information</b>						
Aligns with company values	31	28	16	14	13	102
Adheres to code of conduct	19	40	18	13	12	102
Rewards right behaviors	38	20	16	16	12	102



**Interference**

The above data infers that the respondents belong to values and ethics.

**TABLE 1.6.1.13. COMMITMENT**

PARTICULARS	NO OF RESPONDENTS					TOTAL
	1	2	3	4	5	
Rate Information						
Widely trusted	29	16	19	25	13	102
Takes ownership on the assigned responsibilities	26	25	23	12	16	102
Delivers results	31	29	17	17	8	102

**Interference**

The above data infers that the respondents belong to commitment.

**1.6.2 CHI SQUARE**

**H0:** there is no association between work experience and high emotional strength

**H1:** there is association between work experience and high emotional strength

**TABLE 1.6.2.1**

*Case Processing Summary*

	Cases					
	Valid		Missing		Total	
	N	Percent	N	Percent	N	Percent
Work Experience * High Emotional Strength	102	100.0%	0	0.0%	102	100.0%

Work Experience\*High Emotional Strength Cross tabulation

Count

	High Emotional Strength					Total
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	
Work Experience <1yr	26	0	0	0	0	26
1-5 yrs	0	28	0	0	0	28
6-10 yrs	0	4	16	7	0	27
>10 yrs	0	0	0	10	11	21
<b>Total</b>	<b>26</b>	<b>32</b>	<b>16</b>	<b>17</b>	<b>11</b>	<b>102</b>

**Chi-Square Tests**

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	244.472 <sup>a</sup>	12	.000
Likelihood Ratio	234.477	12	.000
Linear-by-Linear Association	91.302	1	.000
N of Valid Cases	102		



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## Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	244.472 <sup>a</sup>	12	.000
Likelihood Ratio	234.477	12	.000
Linear-by-Linear Association	91.302	1	.000
N of Valid Cases	102		

a. 12 cells (60.0%) have expected count less than 5. The minimum expected count is 2.26

## Directional Measures

				Value
Nominal by Interval	Eta	Work Dependent	Experience	.967
		High Emotional Strength Dependent		.954

### Interference

From the above data it can be inferred that the chi-square value is >0.05 thus null hypotheses is accepted. Hence there is no association between work experience and high emotional strength.

### Correlation

Correlation between respondents view on capability of the individual to make the most efficient and optimum use of the time that is allotted to him/her and capability of the individual to keep tracking the progress of any activity and push through the bottle necks that might hinder the process.

**TABLE 4.3.1 TABLE SHOWING FEATURES AFTER USING CORRELATION METHOD**

S.NO	X	Y	X <sup>2</sup>	Y <sup>2</sup>	XY
1	9	9	81	81	81
2	19	27	361	729	513
3	50	34	2500	1156	1700
4	24	27	576	729	648
5	0	5	0	25	0
<b>TOTAL</b>	<b>102</b>	<b>102</b>	<b>3518</b>	<b>2720</b>	<b>2942</b>

$$n=5,$$

$$\bar{X} = 102/5 = 20.4$$

$$\bar{Y} = 20$$

$$r = \frac{n \sum xy - (\sum x)(\sum y)}{\sqrt{n(\sum x^2) - (\sum x)^2} \sqrt{n(\sum y^2) - (\sum y)^2}}$$

$$r = \frac{5(2942) - (102)(102)}{\sqrt{5(3518) - (102)^2} \sqrt{5(2720) - (102)^2}}$$

$$r = \frac{14710 - 10404}{\sqrt{17590 - 10404} \sqrt{13600 - 10404}}$$

$$r = \frac{4306}{(84.7)(56.5)}$$

$$r = \frac{4306}{4792.05}$$





$$r = 0.89$$

### Interface

The values, i.e. the capability of the individuals to make optimum use of the time allotted to him/her and the capability of the individual to keep track of the progress of any activity and push through the bottlenecks that hinder the growth of the process are positively correlated.

### Regression analysis from the actual means

To find the average probable change in one variable (Leadership: Capability of the individual to lead a certain group of people to achieve a desired result or goal.) with respect to another variable (Follow up: Capability of the individual to keep tracking the progress of any activity and push through the bottle necks that might hinder the process.)

TABLE 4.4.1

X	X-20 (x)	x <sup>2</sup>	Y	Y-20 (y)	y <sup>2</sup>	XY
11	-9	81	9	-11	121	99
20	0	0	27	7	49	0
42	22	484	36	16	256	352
27	7	49	27	7	49	49
2	-18	324	3	-17	289	306
<b>X = 102</b>	<b>x = 0</b>	<b>x<sup>2</sup> = 938</b>	<b>Y = 102</b>	<b>y = 0</b>	<b>y<sup>2</sup> = 764</b>	<b>xy = 806</b>

$$\bar{X} = \frac{102}{5} = 20.4 \quad \bar{Y} = \frac{102}{5} = 20.4$$

### Regression Coefficient of X on Y:

$$b_{xy} = \frac{\sum xy}{\sum y^2} = \frac{806}{764} = 1.05$$

### Regression Coefficient of Y on X:

$$b_{yx} = \frac{\sum xy}{\sum x^2} = \frac{806}{938} = 0.86$$

$$r = \sqrt{b_{xy} \times b_{yx}} = \sqrt{1.05 \times 0.86}$$

$$= 0.95$$

### Interface

It can be inferred that the two variables, i.e., leadership and follow-up are closely related.

### Findings

- 59% of the respondents belong to age group of 21-25, 24% of age group 25-30, 16% of age group 30-35, and remaining 3% belong to age group 35 and above.
- 58% of the respondents belong to male, and remaining 42% belong to female.



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- 41% of the respondents are Diploma holders, 48% are UG graduate and remaining 11% of respondents are others.
- 25% of the respondents have Less than 1 year experience, 27% have 1-5 years, 27% have 6-10 years and 21% have above 10 years of experience in the organization.
- The respondents receive information about personal competencies such as reliability, self-sufficiency and high emotional strength.
- The respondents receive information about knowledge level competencies that includes organizational awareness
- The respondents belong to job related skills / competencies including presentation skill, negotiation skills and accuracy in communication..
- The respondents belong to skills and attributes such as strategic thinking, analytical, problem solving and decision-making skills, emotional flexibility, etc.
- The respondents belong to meta qualities such as creativity and mental agility.
- The respondents belong to vision and purpose to be optimistic and to see new possibilities to take the organization to a higher realm.
- The respondents belong to developing people to assemble strong team with empowerment and to communicate effectively with people.
- The respondents belong to values and ethics to align with company values, adhere to code of conduct and reward right behavior.
- The respondents belong to commitment that includes being widely trusted, takes ownership on the assigned responsibilities and to deliver results.
- The chi-square value is  $>0.05$  thus null hypotheses is accepted. Hence there is no association between work experience and high emotional strength.

### Recommendation

The following are the recommendations based on the observations and results gathered from the research:

- Employees should be clearly explained regarding the objective of conducting the exercise and also the importance of such exercise to their own selves, so that there is a cent percent involvement from the employees' side. This would also help in speeding up the exercise as the doubts regarding the procedure and the expectations from it could be cleared out in the initial phases itself.
- The exercise should be carried out in 360 degrees as it would strengthen the authenticity of the ratings and would give a clearer picture as to the exact skill and competency levels of the employees.
- The exercise should be carried out with the involvement of the senior management as it would bring more quality to the ratings collected.
- Use of occasional skill tests within the department could help the employees keep a track of where exactly they stand and thus would help them put more authentic ratings when asked to.
- The trainings should be planned with the involvement of the employees as well (not only the team leaders) so that there are no low yield trainings being held. This would cut down the costs of training further.
- Further, the findings of the exercise could be shared with the employees in a manner deemed fit by the senior management, so that the employees are clear about the areas in which they are lacking, and thus from their own side ca start working on it.
- This sharing of the results would also give the employees an idea on who to approach in case of a certain skill, as the experts are identified as a result of this exercise. So this would improve the cross education, helping and cohesiveness among the employees. This would further help in the strengthening of the bonds between the employees, thus strengthening the manpower asset of the organization as a whole.

### Conclusion

The competency maps were successfully developed and analyzed for all the teams of Murugappan & Co. The data provided can be used by the organization for planning its training and development programmes for the year ahead. The submitted sheets also provide a good insight into the current position of the employees as far



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as skills and competencies are concerned and also an idea as to how to use them for the benefit of the organization. It would improve the quality of the exercise by leaps and bounds. The project was carried out in a good manner and has met the expectations of the organization and the institute satisfactorily, though it still has quite some scope for improvements which could be incorporated subsequently.

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