Asian And Pacific Economic Review
ISSN: 1000-6052

COMPETENCY MAPPING: A STUDY WITH SPECIAL REFERENCE TO PHARMA EMPLOYEES IN CHENNAI

Dr. N.V.Ramachandran
Assistant Professor, SRM Arts and Science College
Dr.V.Kalaiselvan
Assistant Professor, SRM Arts and Science College

ABSTRACT

Competency mapping has become an important tool for improving organizational performance, particularly in specialized sectors such as the pharmaceutical industry. This study focuses on competency mapping among pharmaceutical employees in Chennai, aiming to identify key competencies required for various roles and evaluate how well these competencies align with organizational goals. By employing a mixed-methods approach that combines qualitative interviews and quantitative surveys, the research investigates the existing competency frameworks, assesses the gaps between required and actual competencies, and explores the impact of competency mapping on employee performance and career development. Proper questionnaire has been framed and used for collecting the primary data for this research. Regression and correlation methods has been adopted for analysing the data. The findings reveal that while competency mapping has significantly improved role clarity and job performance, there are notable gaps in skill alignment and development opportunities. This study provides actionable insights for pharmaceutical companies to refine their competency frameworks, enhance training programs, and better align employee capabilities with strategic objectives. The results contribute to a deeper understanding of competency management in the pharma sector and offer recommendations for optimizing workforce potential in similar organizational contexts.

INTRODUCTION

Pharmaceutical companies operate in a constantly evolving industry, under stringent regulations and demanding stakeholder expectations. To survive and succeed, they need a competent workforce that can deliver safe, effective, and innovative products and services. Competency frameworks have emerged as powerful tools for defining, assessing, and developing the skills, knowledge, and behavior required for various job roles and career paths in the industry. Many pharmaceutical organizations have recognized the value of competency frameworks and are investing significant resources in their development and implementation.

Strength of pharmaceutical sector lies in its capability to provide affordable & quality medicines that are safe & appropriately meet the population needs that depends on the competence workforce that is equitably distributed to provide pharmaceutical services with education & training that is targeted towards individual to attain competencies.

Competencies can be defined as set of knowledge, skills, habits & attitudes required for an individual to perform defined tasks.

IFAPP (International Federation of Pharmaceutical Physicians and Pharmaceutical Medicine) are expected to produce the defined core competencies to orient the discipline & the academic programs for the development of future competent professionals & to advance the profession

7 domains & 60 core competencies were identified and aligned accordingly.

A working group was formed within IFAPP including representatives from PharmaTrain, academic institutions and national member associations, with special interest and experience on Quality Improvement through education.

In the competitive landscape of the pharmaceutical industry, the effective management of human resources plays a crucial role in sustaining organizational growth and achieving strategic objectives. With rapid advancements in pharmaceutical science, evolving market dynamics, and increasing regulatory demands, the need for a skilled and adaptable workforce has never been more pressing. Competency mapping, a systematic approach to identifying and defining the skills, knowledge, and behaviors required for various roles, emerges as a vital tool for aligning employee capabilities with organizational goals.

Competency mapping involves the process of assessing and defining the essential competencies—both technical and behavioral—that employees need to perform their jobs effectively. This process helps organizations ensure that their workforce is equipped with the right skills and competencies to meet current and future challenges. In the pharmaceutical sector, where precision, regulatory compliance, and innovation are paramount, competency mapping can significantly enhance performance, productivity, and employee satisfaction.

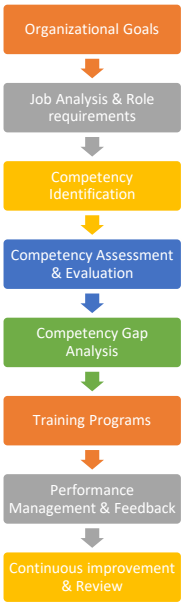
In Chennai, a key hub for pharmaceutical companies in India, there is a growing recognition of the importance of competency mapping. However, many organizations still face challenges in implementing and utilizing competency frameworks effectively. These challenges include a lack of standardized practices, varying methodologies, and difficulties in aligning competencies with the specific needs of different roles within the pharmaceutical industry.

This research aims to provide a comprehensive study of competency mapping practices among pharmaceutical employees in Chennai. It seeks to explore the current methodologies employed by organizations, assess the alignment of these practices with industry requirements, and identify the impact of competency mapping on employee performance and organizational outcomes. By delving into these aspects, the study intends to offer insights into the strengths and weaknesses of existing competency mapping approaches and propose actionable recommendations for enhancing their effectiveness.

Understanding and improving competency mapping practices is essential for pharmaceutical companies in Chennai to remain competitive, optimize their human resource capabilities, and drive overall organizational success. This research will contribute to filling the existing knowledge gap and providing practical solutions for better competency management in the industry.

Competency Mapping Framework

This diagram provides a structured approach to competency mapping, ensuring that all key aspects are covered to enhance organizational effectiveness and employee performance.



Statement of the Problem

In the rapidly evolving pharmaceutical industry, organizations face significant challenges in aligning their workforce's skills and competencies with the strategic objectives and operational demands of the industry. Despite the critical importance of having a well-defined competency framework to enhance employee performance and organizational effectiveness, many pharmaceutical companies in Chennai struggle with identifying, developing, and utilizing the specific competencies required for various roles within their organizations.

This research aims to address the gap in understanding how competency mapping is currently implemented in the pharmaceutical sector in Chennai and to identify the key competencies that are crucial for the performance and growth of employees in this industry. The problem is compounded by the lack of standardized practices for competency mapping and the diverse nature of roles and functions within pharmaceutical companies, leading to inconsistent and often ineffective competency management.

Objectives of the Study

1. To analyze the major competency skills required to perform their job.
2. To identify the Gap between the skills and performance of the employees.
3. To find out how far the training programme is effective to enhance the Skills to improve the performance of the employees

Limitations of the Study

1. The Study focus only the employees of pharma companies in Chennai.
2. The competencies skills of employees are changing continuously based on technology, so this research may not be perfect fit for future.

Review of Literature

1. Coombe et al. (2022) According to some academics, competence may be defined as the state or quality of being appropriately or highly qualified, having the capacity to carry out a certain function, or as a mix of practical and theoretical knowledge, cognitive abilities, behavior, and values utilized to enhance performance. For instance, systems thinking, emotional intelligence, persuasion and negotiating abilities, and managerial competence may all be included.

2. Dr. Saikumari V1, Ms. Sunitha (2021) This study focuses on the use of Competency mapping in training and development and how competency mapping helps to increase the effectiveness of training and development.
3. Ms. Y. V. Naga Kumari and Mr. G. Kamal (2021) this research explored the concept of Competency mapping in general and analyzed the impact of competency mapping on employee development. From the study, it is concluded that competency mapping is a new era in the field of HRM. It assurances economical use of the most important resource i.e., human capital by ensuring the right person to right. It also confirms an individual's career growth and development.
4. Tanushree M Aralihond (2020), This study paper explores the requirements of employability competencies in the new normal and the kind of talent required for success in the global business world. This study also explores content about competency mapping, in that component of competency, competency model, competency mapping process, and benefit. The study paper suggested key areas to be focused on by management students for improving employability competencies that is to cover up the existing competencies gap.
5. Ramola and Rangnekar (2020), through competency mapping, emphasized workers' understanding of diverse skills and how these skills were used by employees contributing to the organization. Employees were found to be knowledgeable about skills such as communication, leadership, technical, marketing, and data analysis. Communication, teamwork, decision-making, accounting, and marketing abilities are among the numerous talents that employees possess. The key benefits of competency mapping include increased sales, company profit, and more prospects for advancement.

Research Methodology

Research Design

This research is a descriptive one. The descriptive side paints a picture of the phenomenon or characteristics it examines, providing details about who, what, when, where, and sometimes how things occur within the studied population.

Data Collection Method

➢ Primary Data: Used structured and reliable questionnaires created on Google Forms and circulated among the respondents.

➢ Secondary Data: The secondary data was collected using organization manuals, SOP (Standard Operating Procedures) files, the company website, and other websites on Google.

Sample Size

A sample of 160 employees from the total population has been taken for the study.

Sampling Method

Under the probability sampling, systematic sampling technique was used for this study.

Statistical Tools

For analyzing the responses received from the questionnaire, three different statistical tools were used in the study. These are:

- Percentage Analysis
- Correlation Analysis
- Regression Analysis

ANALYSIS

TOOL 1:

Correlation Analysis- Karl Pearson Correlation is used to examine the effectiveness of the training provided to the employees to enhance the knowledge about the topic in which employees have been trained. The analysis is done using the statistical software IBM SPSS Statistics 27.

➢ Variables

 Training is provided to the employees at the company to improve knowledge competency.

 Knowledge updation of the employees receiving the training.

Hypothesis

Null Hypothesis (H01): There is no relationship between the training provided to the employees and the knowledge updation of the employees.

Alternative Hypothesis (Ha1): There is a relationship between the training provided to the employees and the knowledge updation of the employees.

Correlations

		Training	Knowledge
Training	Pearson Correlation	1	.786**
	Sig. (2-tailed)		<.001
	N	160	160
Knowledge	Pearson Correlation	.786**	1
	Sig. (2-tailed)	<.001	
	N	160	160

**. Correlation is significant at the 0.01 level (2-tailed).

Result- The correlation coefficient is positive with a value of 0.786 and statistically significant at the 0.01 level (two-tailed).

Inferences

- Training and Knowledge: These are the two variables being compared.
- Pearson Correlation: This is a statistical test to measure the strength and direction of the linear relationship between two variables. The value ranges from -1 to 1.
- It shows a positive correlation between training and knowledge. The correlation coefficient is 0.786 and statistically significant at the 0.01 level (two-tailed). Hence, H01 is rejected, and Ha1 is accepted.
- This is likely because training provides people with the opportunity to learnnew information and develop new skills.

TOOL 2

Regression Analysis- It is used to assess the combined effect of various competencies on employees' job performance. The analysis is done using the statistical software IBM SPSS Statistics 27.

Variables

 Dependent Variable- Job Performance of the employees evaluated based on the core competencies under the knowledge category.

 Independent Variables- Importance of GMP (Good Manufacturing Practices), Job Knowledge, Safety, Computer skills, Knowledge updation.

Hypothesis

 Null Hypothesis (H02): The independent competencies considered under the knowledge category do not influence the employee's job performance.

 Alternative Hypothesis (Ha2): The independent competencies considered under the knowledge category do influence the Job performance of the employees.

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.586	.279		5.684	.000
	GMP*	.318	.086	.360	3.703	.000
	Job knowledge	-.247	.076	-.351	-3.238	.001
	Safety	.108	.083	.115	1.292	.198
	Computer	.325	.088	.387	3.698	.000
	Knowledge updation	.158	.093	.211	1.706	.090

a. Dependent Variable: Job Performance

*GMP- GOOD MANUFACTURING PRACTICES

Result

- Constant (1.586): This represents the expected value of Job Performance when all the independent variables are zero (which is likely not the case in reality).
- Other variables (GMP, Job knowledge, etc.): These coefficients represent the average change in Job Performance associated with a one-unit increase in the respective independent variable, holding all other independent variables constant. For example, a one-unit increase in GMP is associated with a 0.318 increase in Job Performance, on average.
- Standardized Coefficients (Beta): These coefficients represent the change in Job Performance in terms of standard deviations when there's a one standard deviation change in the corresponding independent variable while controlling for other variables. They are more useful for comparing the relative strength of the relationships between the independent variables and the dependent variable.
- t (t-statistic): This statistic is used to assess the significance of each independent variable. A t-value greater than (in absolute value) 1.96 (at a significance level of 0.05) indicates that the relationship between the independent variable and the dependent variable is statistically significant.
- Sig. (Significance): This p-value corresponds to the t-statistic. A value less than 0.05 suggests that the relationship between the independent variable and the dependent variable is statistically significant at the 5% level.

Inferences

- GMP, Computer, and Knowledge updation: All three have positive coefficients (B) and significant p-values (Sig. < 0.05), indicating that higher values of these variables are associated with increased Job Performance. The impact of GMP (0.318) seems to be the strongest among these three based on the unstandardized coefficients, while Beta coefficients can be used for a more precise comparison when the scales of the variables are different.
- Job knowledge: This has a negative coefficient (-0.247) and a significant p-value (Sig. < 0.05), which seems counter-intuitive. There might be a couple of reasons for this:
- It's possible that Job knowledge is correlated with another variable in the model (like GMP or Computer) that has a stronger positive effect on Job Performance.
- Having some level of knowledge is beneficial, but too much knowledge might overload or not be directly applicable to the job, leading to a decrease in performance.
- Safety: This has a positive coefficient (0.108) but a p-value that is not significant (Sig. = 0.198). This suggests that while there might be a weak positive association between safety awareness and Job Performance.
- Overall, the results suggest that we fail to accept the null hypothesis (H02) hence accept the alternative hypothesis (Ha2) because the regression analysis showed positive coefficients for GMP, Computer knowledge, and Knowledge updation. This indicates a positive association between these knowledge-based competencies and job performance. The p-values for these variables were significant (less than 0.05), suggesting the observed relationships are unlikely due to chance.

Conclusion

The study on competency mapping among pharmaceutical employees in Chennai highlights several key findings and implications for the industry. Competency mapping has proven to be an essential tool for aligning employee skills with organizational goals, improving both individual and organizational performance. The study highlights the significance of continuous training and development programs personalized to address competency gaps. Such initiatives are vital for maintaining competitive advantage and confirming that employees have the necessary skills to meet changing industry demands. For pharmaceutical companies in Chennai, it is recommended to refine and regularly update competency frameworks, implement targeted training programs, and use competency mapping as a dynamic tool for career development and performance management. In summary, competency mapping is a valuable practice for enhancing workforce effectiveness and aligning employee skills with organizational needs. By addressing identified gaps and focusing on continuous improvement, pharmaceutical companies can better position themselves for long-term success and resilience in a competitive market.

BIBLIOGRAPHY

1. Coombe, Leanne, Christina Anne Severinsen, and Priscilla Robinson. 2022. Mapping competency frameworks: Implications for public health curricula design. Australian and New Zealand Journal of Public Health, 564–71. [Google Scholar] [CrossRef]
2. Awasthi, Shraddha, and R. C. Sharma. 2016. Employee Development through Competency Mapping: A way ahead for Organizational Growth. International Serial Directories International Journal in Management and Social Science 4:260–70. [Google Scholar]
3. Saxena, Surbhi, and Harminder KAUR Gujral. 2018. Competency Mapping: A powerful HR tool for efficiency enhancement in the organization. International Journal of Applied Businessproduction Lines and Thus Greatly Ss and Economic Research 15: 401–9. [Google Scholar]
4. Saxena, Surbhi, Harminder Kaur Gujral, and Sudhansu Pathak. 2022. A study of Competency-based Approach to Identify High Performers among Disaster Management Professionals. Studies of Applied Economics 40: 1–12. [Google Scholar] [CrossRef]
5. Sharma, Divya. 2015. Competency Mapping to Identify High Performers: In Context to IT Professionals. International Journal of Science and Research (IJSR) 4: 2416–21. [Google Scholar]