

Competency Mapping in Indian Steel Industry

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Abstract: One of the most important sectors of the Indian industrial landscape, the steel industry, depends on having skilled and productive workers in order to compete internationally. In this industry, competency mapping is critical to improving role effectiveness and organizational success. This strategy method closes common skill gaps and identifies the essential competences required for different activities, optimizing worker skills. The study looks at how top Indian steel companies now operate, assesses the effects on output and worker growth, and makes recommendations for best practices. The results, which make use of secondary data, highlight how important systematic competence mapping is for promoting organizational performance in the steel sector. As a strategic approach to human resources, competency mapping determines the fundamental abilities, know-how, and conduct required for various positions within an organization.

Keywords: Organization, Competency mapping, Indian Steel industry, Skilled workforce.

Introduction

The steel industry is one of the most important areas of the Indian economy, supporting the country's infrastructure and industrial development. As one of the world's top steel manufacturers, India's steel industry supports a wide range of industries, including construction, automotive, equipment, and consumer products. However, the steel industry's landscape is continuously changing, driven by technical breakthroughs, globalization, and increased rivalry. To compete in this dynamic environment, businesses must prioritize both technology innovation and the development of a highly skilled and adaptive staff.

Competency mapping has arisen as a strategic tool to meet this demand, allowing firms to systematically identify and develop the skills and competencies required for diverse roles in the sector. Companies may improve role efficacy and overall organizational

performance by mapping competencies and ensuring that their workforce has the requisite abilities to tackle current and future problems.

Competency Mapping

The methodical process of identifying, defining, and analyzing the behaviors, skills, and knowledge needed to carry out particular tasks inside an organization is called competency mapping. This procedure guarantees that workers have the skills needed to succeed in their positions by helping firms match the capabilities of their workforce with their strategic objectives. In order to map employee competencies, a competence framework must be created, present employee competencies must be evaluated, gaps must be found, and specific training and development initiatives must be put in place to close those gaps.

Key Components of Competency Mapping

Identification of Competencies: Determining the essential competencies required for various roles. Competencies can be technical (job-specific skills and knowledge) or behavioral (interpersonal skills, communication, leadership).

Competency Framework Development: Creating a structured framework that categorizes and defines the identified competencies. This framework serves as a reference for evaluating and developing employee skills.

Competency Assessment: Evaluating the current competency levels of employees against the defined framework. This can involve self-assessments, manager evaluations, 360-degree feedback, and performance reviews.

Gap Analysis: Identifying gaps between the current competency levels and the required levels. This analysis helps in understanding where development is needed.

Training and Development: Designing targeted training programs and development initiatives to bridge the identified competency gaps. This ensures employees are equipped with the necessary skills to excel in their roles.

Continuous Monitoring and Updating: Regularly reviewing and updating the competency framework and assessments to reflect changes in job roles, industry standards, and organizational goals.

Competency Mapping in Indian Steel Industry

The Indian steel industry is an important sector for the country's economic growth, infrastructure development, and industrial advancement. As one of the world's top steel producers, India's steel industry includes a wide range of operations, from raw material extraction to final product production. Given the industry's complexity and scope, ensuring that personnel have the essential skills is critical to preserving efficiency, safety, and competitiveness.

The strategic necessity of competency mapping in the Indian steel industry stems

from the industry's dynamic character and the need for a competent workforce to fulfill changing demands. Within this sector, competency mapping is used to pinpoint, evaluate, and cultivate the fundamental abilities, know-how, and conduct needed for a variety of positions, from engineers and metallurgists to manufacturing technicians and security officers. Technical skills are essential for guaranteeing high-quality manufacturing and operational effectiveness. Examples of these skills include metallurgical expertise and competence with heavy machinery. It is crucial to have safety capabilities, such as following strict safety guidelines and emergency response plans, in order to reduce the hazards associated with the production of steel. Furthermore, in order to promote cooperation, guarantee efficient coordination, and handle operational difficulties, behavioral competences like communication, teamwork, and problem-solving abilities are crucial. Steel firms may maintain a competitive edge in the global market, increase safety standards, and boost labor performance through competency mapping. It enhances hiring procedures, promotes focused training and development programs, and helps workers advance their careers. Competency mapping promotes organizational excellence and resilience in the Indian steel sector by matching staff competencies with corporate goals.

Current Procedures at the Top Indian Steel Industries:

Examining present practices at prominent Indian steel corporations, such as Tata Steel, JSW Steel, and Steel Authority of India Limited (SAIL), necessitates a thorough investigation of their competency mapping frameworks. These industry behemoths jointly account for a sizable portion of India's steel production, with Tata Steel accounting for roughly 20%, JSW Steel for around 15%, and SAIL for approximately 10%. This research attempts to find insights into the strategic approaches used by these major players to optimize workforce skills and drive organizational excellence by diving into their methodology, tools, and frameworks. Furthermore, this research aims to identify best practices in competency mapping used by Tata Steel, JSW Steel, and SAIL. These corporations have leveraged their sector expertise and market supremacy.

Developed unique talent management strategies and structures. This study will analyze their competency mapping activities in order to identify important success factors that contribute to their leadership positions in the Indian steel sector. This study aims to provide practical recommendations for improving competency mapping methods across the sector by measuring them against industry leaders and examining their performance metrics, ultimately fostering sustainable growth and competitiveness.

Ojbectives of the Study:

The First goal is to emphasize about competency mapping and its Advantages and Importance.

To analyze the current competency mapping practices in the Indian steel industry.

This study examines the conceptual framework of Competency Mapping.

Research Methodology:

Secondary data is the source of information which is already existed in journals, books and company websites etc

Literature Review:

¹**Namita Rath(2016)** studied that Competencies are components of a job which are reflected in behavior that is observable in a work place. The common element most frequently mentioned are knowledge, skills, abilities, aptitudes, personal suitability behavior and impact on performance at work. The main emphasis of organizations has begun to believe in excelling and not in competing. The competency mapping affects the existing competencies of employees. Therefore, the paper attempts to measure the role of competency mapping in the efficient performance of the employees at executive level and determine various functional areas, where the competency mapping can proved beneficial. Organizations need to understand that competency mapping is not a onetime consideration, it is not a reward, rather it is an essential tool for employee's skill development hence it should be an ongoing exercise in the organizations.²**Mr. S. Gokul Kumar , Mr. A. Prasanth , Dr. P. Arun Prakash , Dr. T. Sisili , Ms. T. Susmitha , Ms. B. Devi Abinaya , Mrs. K.M. Nithya& Mr. R. Krishna Prakash** highlighted that The success of every organization depends on its employees. Therefore the most important thing is their satisfaction and this can be achieved only if there exists a proper quality of HRD. The researcher had undertaken the study the perception of employees towards competency mapping in the Shree Harie steel and alloys in Annur. This study will provide information about the views and thoughts that the employees possess about competency mapping and helps in giving special attention to those areas were the needs have not been fulfilled which in turn will help in the overall development of the organization. The study analysed taking the all categories of employees, their needs and job roles has been found challenging every day. In order to improve their level of competence their leadership quality towards planning to achieve the productivity to maintain the required competence levels has been tested to find out the area needed to be strengthened with all the factors such as Adaptability, Initiative, Judgement, Problem Solving, Planning and Organization, Leadership Quality, Productivity and Use of Technology.³**Sandhya Kumar^{1,*} , Shailesh**

Kumar² , J.Somasekar³(2023), The Global Manufacturing Index highlights visual management and low-cost installations, as well as the benefits of Industry 4.0. The E-kanban systems effectively executed these competencies. The "lean" approach aims to save time and eliminate waste, such as mistakes and superfluous tasks. These procedures ensure precise harvesting at the appropriate moment..⁴**Dr. Vikram Singh Chouhan, Dr. Sandeep Srivastava(2020)**, This competency structure offers a foundation for building programs in educational institutions and organizations. This document aims to assist firms in implementing competence-based HR practices across all HR specializations, particularly in the manufacturing industry. A framework has been developed to help map and evaluate workforce competencies. Highly sensitive manufacturing industry offers proficient economic services, provides a competitive edge.

⁵**Mrs. K. Pavani * Prof. B. Mohan Venkata Ram(2024)**, Studied The literature evaluation highlights the subject's popularity among scholars and academics in India and beyond. The review emphasizes the necessity for empirical research on competency mapping in the industrial sector, namely the steel industry.⁶**S. Vasantha* and M. R. Rath(2016)**, highlighted that by Consider adopting the same strategy as competitors if it is strategically feasible for the firm. Competitive advantage requires better competency and resources. In today's world, procuring real resources is easier due to multiple funding sources and global accessibility. However, the most important aspect is having a qualified and dedicated personnel to execute strategy. HR interventions are increasingly important in the steel industry, which is currently undergoing significant development. : Indian Steel Industry today is at a cross road. Global market and free trade agreements with other steel producing Nations, unbelievable pace of change in technology have impacted the Industry as never before. At this juncture it is imperative first to identify and analyze the Key Business Drivers and Current Business Trends. Based on the above two parameters as well as Strength and weakness of the industry, HR Challenges for the Industry can be identified. The HR challenges can lead to focused HR interventions required for the Industry to have competitive advantage in Global Market. ⁷**k.Padmavathi Nageswaramma & Dr.R.Padmaja(2017)**Studied Companies such as VSP, SAIL, Tata Steel, and JINDAL are reevaluating their training program investments because they understand that employees' knowledge, skills, and attitudes provide them a competitive edge and help them adapt to changing environmental conditions. They can make critical judgments about changing the training programs by eliminating their flaws and developing a better strategy based on the data acquired from reviewing the programs. The aforementioned businesses can prepare their staff to perform in this demanding and fiercely competitive climate by using relevant employee surveys and models based on Kirkpatrick's four levels of thinking. Companies such as SAIL and VSP have allocated

significant funds for internal or external training initiatives. They deploy training to help workers acquire the skills they need to stay on the job, enhance company culture, and establish a rewards system for exceptional work.⁸**Srinibash Dash** ,**Sundhansu Sekhar Rath(2021)**,Highlighted about Indian steel industry, which includes both public and private sector companies, is one of the fastest-growing in the world in terms of steel production. The business is also turning more and more to exports as a development engine. Both the governmental and private steel sectors are examined in this study.

Benefits of Competency Mapping:

Competency mapping offers several advantages for organizations. Firstly, it enhances organizational performance by ensuring employees have the necessary skills to achieve company goals, thereby improving productivity and overall outcomes. Secondly, it enables targeted training and development by identifying areas where skills are lacking, ensuring resources are allocated effectively to areas where performance is most affected. Additionally, competency mapping supports career growth and succession planning by helping employees understand the skills needed for success and identifying potential leaders for tailored development programs. Moreover, it aids in attracting and selecting candidates who possess the required skills and align with the company culture, leading to better hiring decisions and decreased turnover. Lastly, competency mapping fosters employee retention and engagement by providing a clear path for growth and encouraging continuous improvement, contributing to a positive work environment and organizational success.

Importance of Competency Mapping

Competency mapping serves as a crucial strategic tool for managing human resources and fostering organizational growth. It plays a vital role in identifying, evaluating, and enhancing employees' abilities, knowledge, and behaviors necessary for effective task performance. Competency mapping ensures alignment between workforce competencies and strategic goals, thereby enhancing employee performance, productivity, and overall efficiency. By pinpointing specific skill gaps and training needs, organizations can develop tailored training programs, optimizing resource allocation. Additionally, competency mapping establishes clear criteria for job roles, improving hiring decisions and reducing turnover rates.

Furthermore, competency mapping assists in creating transparent career pathways for employees by defining required skills for various positions and facilitating succession planning for future leaders. When employees understand their roles and see opportunities for growth, they are more likely to feel engaged and committed to the organization. Providing clarity on roles and competencies through competency mapping enhances

employee retention and job satisfaction. Moreover, competency mapping provides an objective benchmark for evaluating employee performance, ensuring the establishment of fair and equitable performance standards.

Current Competency Mapping practices in the Indian steel industry

Competency mapping strategies have evolved in the Indian steel industry to satisfy the sector's increasing operating requirements and a wide range of difficulties. Businesses are carefully considering which competencies are required for various jobs inside their organizations, with a focus on technical skills such as quality control, machine operation, metallurgy, and tight safety rules. During this procedure, competency frameworks tailored to a certain job function are built. These frameworks serve as guides for training initiatives and employee skill assessments. Businesses extensively evaluate employee skills using a number of assessment tools, including performance appraisals, manager evaluations, and self-assessments. Furthermore, competency mapping is easily integrated into broader personnel management procedures, influencing activities like as succession planning, training programs, and recruitment strategies.

In particular, in order to provide a safe environment, safety competencies remain critical, with specific investments in safety training. workplace. Competency mapping procedures are characterized by ongoing monitoring and improvement, with firms rewriting frameworks on a regular basis to reflect changing company goals and industry trends. The increasing importance of soft skills such as leadership, cooperation, and communication stresses the importance of fostering a collaborative environment. Technological advancements are also increasing efficiency and scalability by simplifying competency mapping operations. Competency mapping is a strategic approach used by the Indian steel industry to increase personnel capabilities, promote operational excellence, and preserve a competitive advantage in an ever-changing market.

Conclusion: In the Indian steel sector, competency mapping has proven to be an important strategic tool for improving worker efficiency and organizational performance. Leading steel businesses, like Tata Steel, JSW Steel, and SAIL, have successfully addressed skill gaps, promoted employee development, and enhanced productivity by carefully identifying and fostering the critical skills and competences required for specific roles. The outcomes of this study highlight the relevance of systematic competence mapping in developing a competent and flexible workforce, which is critical for remaining competitive in an ever-changing global market. Future research should center on improving competency mapping procedures by combining new technologies such as artificial intelligence and machine learning.

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