Bridging Competency Gaps and Navigating Emerging Horizons in HR Management: A Study in the Foundry Industry of Kolhapur, India

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Abstract. This study aims to explore the competencies of HR managers and the disparities between actual and expected competencies while considering the influence of age. The research is based on data collected through surveys, structured questionnaires, telephonic interviews, job analysis, job evaluation, expert consultations, and 360-degree feedback. The findings reveal that competencies are indeed influenced by age, emphasizing the need for tailored training programs for different age groups. Specific competency gaps were identified in functional, managerial, and human attributes areas, prompting the recommendation of targeted training and development programs to address these shortfalls. Furthermore, the study highlights varying levels of awareness and application of emerging HRM areas such as Natural Language Processing (NLP) and HR Analytics, suggesting the importance of training in these domains. Organizations are encouraged to foster a continuous learning culture, conduct regular competency assessments, and tailor training programs to enhance HR professionals' competencies, ultimately contributing to HR and organizational success.

Keywords: Competency analysis, competency gap, managerial skills, human attributes, training needs analysis competency assessments, tailored training programs, measurement of impact.

1   INTRODUCTION

In today's competition, it is possible for an organization to sustain and grow only if it has competent workforce to convert the vision of the management into reality. The expectations from the HR department have increased considerably as it has to play a crucial role in attracting and retaining competent workforce. HR's role has changed significantly from just a compliance- department to a talent and human capital management department. HR professionals themselves have to possess certain competencies in order to be able to do justice to these changing expectations and role.

What is competency? Competency is defined as the ability to do something successfully or efficiently. The word 'competence' first appeared in in an article authored by R.W. White in 1959 as a concept for performance motivation. The idea was first described in Planning the Executive Development Program by Craig C. Lundberg in 1970. The phrase was further emphasized in the 1973 publication Testing for Competence Rather than for Intelligence by David McClelland. Competence is a set of certain characteristics that are demonstrable present in the employees that enable them to improve their performance at job. Hence, it is a set of context-specific qualities needed for better performance at job and which can be used as a benchmark against which job performance can be measured. This can also be used for understanding hiring and training-related requirements.

Some competencies can be 'core competencies' that give competitive advantage to the organization. Some can be applicable to all jobs, while some can be job-specific.

HR managers are responsible for planning and managing all HR functions in an organization. There are competencies that are extremely important to be present in them to enable them to play their role as HR manager in an organization.

Through this research, attempt has been made to map the competencies of HR managers working in Foundries in Kolhapur District, from MSME sector. In this research, the researchers have considered Technical/Functional, Managerial and Human competencies. The conceptual competency is considered in context of the other three competencies. The main purpose of this study was to evaluate existing competencies in HR managers and identify gaps in expected and actual competencies possessed by them. After identifying gaps in actual and expected competencies, the research further extends to develop training modules to address the gaps in competencies identified.

2   RESEARCH DESIGN

The research design in this study involved multiple methods, such as exploratory, descriptive, survey, and empirical. Robson (2002) describes an exploratory study as an approach to understand what is happening and to uncover new insights by asking questions. This research design is descriptive in nature. Descriptive research involves fact-finding. Based on a review of the literature, both required and actual competencies are identified, and a competency model is developed.

2.1   OBJECTIVES OF THE STUDY

- Identify the types of competencies possessed by the HR managers.
- Bring out the gap between actual and expected competencies among HR managers.

2.2   DATA COLLECTION

The study employed a comprehensive data collection approach, combining survey questionnaires, telephonic interviews, job analysis, job evaluation, expert consultations, and 360-degree feedback. Primary data was gathered through structured questionnaires,

enabling insights into both Actual Competency Level (ACL) and Expected Competency Level (ECL). HR managers provided ECL data, and additional performance feedback was obtained through face-to-face interviews with superiors, peers (Line Managers), and workers. These various data sources contributed to a well-rounded assessment of HR manager competencies. The collected data was then analyzed using SPSS, ensuring a rigorous and data-driven evaluation of the competencies under study, providing a robust foundation for the study's findings and conclusions.

2.3   SAMPLE DESIGN

The research was focused on foundry industries from MSME sector in Kolhapur district. The list of foundries registered with the Udyog Bhavan was procured by the researchers. As per Slovin's formula of sample size calculation, As per data from DIC, there are 164 registered foundries in Kolhapur District qualifying as MSME industries. These were considered as universe for the study. Using Slovin's formula;

n = N/(1+Ne2),

Where n is the sample size, N is the population size and e is the margin of error to be decided by the researcher.

The sample size comes to 116.

Questionnaire was sent to HR managers from all 164 foundries. 142 responses were received, out of which 133 were complete and were considered for the study.

2.4   SCALE ADOPTED

Competency mapping is a technique that pinpoints critical competencies for a company and/or role and integrates those attributes into all of the company's activities (such as hiring, training, and job evaluation). The mapping of competencies is essential to reinforce business strategy, culture, and vision. Competency Mapping creates performance excellence expectations, resulting in a methodical approach to professional growth, increased job satisfaction, and improved staff retention. It allows for a more specific and objective assessment of individual abilities, as well as the specification of targeted areas for professional development. The competencies are classified into three types: - Technical or Functional Knowledge, Managerial Skills and Human Attributes [8]). The scale was adapted from [7] which is consistent with [8].

2.5   RATIONALE OF THE STUDY

Competency mapping is a process of vital importance in human resource management and therefore in management of entire organization. It provides an insight into the skills required by different employees working at different key positions in the organization. HR manager is definitely one of the key managerial positions in an organization as they help in optimal utilization of the most important resource available to the company that is human resource.

It is important to note that HRM which was considered to be just a supporting function in an organization is now widely accepted as an important strategic partner that

contributes immensely towards the growth of an organization. The role of HR managers is not only challenging but is also transformed into a change agent. Thanks to the advent of technology in the field of HRM, HR manager need to be abreast of technological applications in HRM.

This has given rise to skill gap between the need of the industry and available skill set of the HR managers. The study aimed at not only to identify the skills gap but also has developed concrete modules that can be used to train HR professionals in the industry and students to address the skill gap.

2.6   SCOPE OF THE STUDY

The study was conducted on Foundry industry coming under MSME category in Kolhapur district. Three main competencies viz; Technical/ Functional, Managerial and Human competencies are considered in this study.

3   REVIEW OF LITERATURE

This study builds upon existing research conducted by various scholars, including [2, 4, 17, 15, 1, 18], as outlined in the literature review. While many studies have explored HR professionals' competencies, there remains a need for integrative studies that link competencies with training needs.

Competency, rooted in the Latin word competentia, denotes the authorization to judge and the right to speak [3]. It signifies the attributes, including knowledge, skills, and abilities, that underlie an individual's performance. [17] define individual competence as elements that directly influence performance.

Competencies can be classified into core and functional competencies. Core competencies, as defined by [4] serve as the foundation for strategic direction and involve essential behaviors for all employees. Job-specific skills, referred to as functional competencies [13], are required for specific roles. [4] emphasizes the critical role of competency in an organization's success, linking it to performance and career development. [17] highlights HR professionals' contribution to overall strategy by aligning the internal organization with external customer expectations. [6] examined the skills gap among graduates in the USA, UK, and Australia, emphasizing the importance of oral and written communication skills, work ethic, and organizational skills.[14] noted the significance of professional practice and systematic inquiry competencies in evaluation, highlighting training needs in interpersonal competence and reflective practice. [3] identified factors necessitating new competencies in organizations, including the pursuit of quality, new technology, flexibility, changing competitive landscapes, globalization, and the power of knowledge. [17] stressed that traditional HR competencies are no longer adequate in addressing contemporary HR challenges. In Malaysia, [1] developed a competency model for HR practitioners, emphasizing the significance of behavioral and technical competencies. Context-specific competencies for HR managers are crucial. Given the foundry cluster context in Kolhapur, this study aims to link

competency mapping with training needs to provide a framework for the foundry industry.

3.1   RESEARCH GAP

While numerous studies have investigated HR professionals' competencies, there is a noticeable gap in the existing research. Specifically, there is limited integration of competencies with training needs, especially in the context of specific industries or regions. The existing literature acknowledges the importance of competencies and their evolution in response to changing organizational and environmental dynamics. However, the literature review highlights a need for comprehensive research that systematically explores the alignment between HR professionals' competencies and the specific training needs within distinct contexts, such as the foundry industry in Kolhapur, India.

This research gap suggests an opportunity to conduct a study that not only identifies the key competencies required for HR professionals but also delves into the practical aspect of addressing training needs to bridge the competency gap effectively. By focusing on a specific industry context, such as the foundry industry, the study can offer valuable insights and recommendations for HR professionals and organizations operating within this sector.

3.2   Kolhapur profile

Kolhapur is located on the banks of the river Panchaganga. It is located on the National Highway -4 connecting two important cities in the country that are Pune and Bangalore. Both Pune and Bangalore are important industrial hubs. As Kolhapur was always agro-based economy, the demand for agricultural equipment and oil engines grew with industrialization in the South Western Maharashtra. Due to this demand, the foundry industry in Kolhapur grew in leaps and bounds in the decade of 1960s. There are hundreds of foundry units located in Kolhapur. These units are spread across 8 industrial estates.

The foundries in Kolhapur mainly manufacture ferrous (iron) castings. The products cover both SG iron and grey iron castings. The total production of the foundry cluster at Kolhapur is around 6,000,00 to 7,000,00 tons annually. Majority of the foundry units in Kolhapur have clients from agriculture and agro-based industries.

According to one estimate, about 30-35 % of the production is exported to different countries across the world. Thus, Kolhapur has made a place for itself in the global scenario due to its foundries.

Reliability Test: The purpose of reliability testing was to look at the qualities of measuring scales and items in order to calculate the scales' overall index of internal consistency [Hair et al. (2006)]. The most popular measure of internal consistency (reliability) is Cronbach's alpha. Likert Scale is used in the scale and to find out the reliability of a scale.

The Cronbach's alpha values for all items within the all the competency construct are consistently below 0.720, but the total alpha for the construct itself is 0.720, indicating that all items contribute significantly to the trustworthiness of the construct, and

no items need to be removed. A Cronbach's alpha exceeding 0.7 is generally considered acceptable in social science research.

4   The Normality Shapiro –Wilk Test - Competency Level

The data is considered normal if the Sig. value of the Shapiro-Wilk test is greater than 0.05. Less than 0.05 indicates deviates from a normal distribution in the data. Since all of the significant values in this case are less than 0.05, the hypothesis is rejected, indicating a significant deviation from normality in the data.

Hypothesis test summary age and competency:-independent samples kruskal- wallis test

Table 1. No. 1 Relationship between competencies level and age

Sr.No.	Null Hypothesis	Test	Sig	Decision
1	The distribution of Actual functional competency and Expected functional competency is the same across categories of Age	Actual	0.461	Accept the null hypothesis
		Expected	.007	Reject the null Hypothesis
2	The distribution of Actual Managerial competency and Expected Managerial competency is the same across categories of Age	Actual	.000	Reject the null Hypothesis
		Expected	.000	Reject the null Hypothesis
3	The distribution of Actual	Actual	.000	Reject the null Hypothesis

	Human Attrib-utes competency and Expected Human Attrib-utes competency is the same across catego-ries of Age	Ex-pected	.000	Reject the null Hypothesis

Because there is a significant link between expected functional competency, actual and expected managerial competency, actual and expected human attributes with respondent age, the null hypothesis is rejected, and the alternative hypothesis is accepted because the p values are less than 0.05. While the Kruskal Wallis test for actual functional competency and age is 0.461. The fact that the p value is greater than 0.05 indicates that there is no relationship between real functional competency and age. Managerial competency, actual and expected human attributes with length of service, the null hypothesis is rejected, and the alternative hypothesis is accepted because the p values are less than 0.05. While the Kruskal Wallis test for actual functional competency and age is 0.461. The fact that the p value is greater than 0.05 indicates that there is no relationship between actual functional competency and length of service.

The distribution of actual functional competency and expected functional competency is the same across categories of Age.

In summary, the results of the hypothesis tests reveal significant differences in the distribution of competencies across age categories, with variations between actual and expected competencies. The actual functional competency does not significantly differ among age groups. However, for expected functional competency, there is a notable variation, indicating that expectations of functional competency change with age.

Both actual and expected managerial competencies show significant differences in distribution across age categories, signifying that the managerial skills of individuals, as well as their expected managerial skills, vary as they age.

Similar to managerial competencies, both actual and expected human attributes competencies exhibit significant differences in distribution across age categories, highlighting age-related variations in these competencies. This study reflects how the distribution of competencies among various age groups may be impacted by changes in expectations for particular competencies as people age

Table 2. No.2 The competency mean score of functional competency

Sr.No.	FC- Items	Actual Competency	Expected Competency
1	Business Awareness,	3.98	4.26
2	Organizational Awareness	4.30	4.53

3	Technical Skills	4.19	4.39
4	External Awareness	4.05	4.46
5	Functional Competency Level	4.13	4.41

The table indicates a slight discrepancy between the needed and actual scores for business awareness, which is the highest (4.53 and 4.30).

Fig. 1. Gap on Functional Competency among HR Professionals

The graph shows the difference between predicted and actual functional competencies in the areas of business awareness, organizational awareness, technical abilities, and external awareness. The mean ratings for expected and actual competency in each of the functional competency areas are displayed in the table. Business Awareness, which has an expected score of 4.53 but an actual competency score of 4.30, is the highest necessary competency level. This disparity suggests that employees are slightly below the expected level in terms of business awareness. Overall, the table indicates that there is a small gap between the expected and actual competencies in each of the functional competency areas, it is indicating that employees are less competent than expected in these areas. To address this gap, organizations could think about putting in place training and development initiatives to improve employees' competencies in these areas, eventually bringing their skill levels closer to the expected standards.

Table 3. No. 3 Competency Mean Score of Managerial Competency

Sr.No.	FC- Items	Actual Competency	Expected Competency
1	Stakeholder oriented	3.83	3.96

2	Planning Skills	4.28	4.41
3	Cross Func-tional Perspec-tive	4.45	4.47
4	Concern for Excellence	4.14	4.66
5	Excellent Judgement	3.65	4.30
6	Leadership Skill	4.48	4.46
7	Delegating and Supporting skills	4.17	4.48
8	Risk Taking	4.17	4.29
9	Managerial Competency	4.15	4.39

Fig. 2. Gap on Managerial Competency among HR Professionals

This chart shows the discrepancy between the expected and actual managerial compe-tencies in the areas of stakeholder orientation, technical skills, planning skills, cross-functional competencies, excellent judgment, leadership, delegating and supporting skills, and risk-taking abilities.

The table provides the comparison that how HR professionals' actual and expected competencies in a number of managerial competency categories compare. It is clear that there are several areas where the expected and actual skills differ.

Specifically, the HR professionals fall short of the expected competency levels in the following areas:

- Stakeholder oriented
- Planning Skills
- Excellent Judgement
- Leadership Skill
- Delegating and Supporting skills
- Risk Taking abilities
- On the other hand, HR professional meet the expected competencies when it comes to managerial competency and concern for excellence,.

These competency gaps highlights that HR professionals could benefit from specialized training and development initiatives meant to advance their knowledge in the high-lighted fields. To tackle these gaps, organizations can ensure that their HR professionals possess the requisite competences to excel in their roles and make a more meaningful contribution to the organization's success.

Table 4. Competency Mean Score of Human Attributes Competency

Sr.No.	FC- Items	Actual Compe-tency	Ex-pected Compe-tency
1	Communication Skill	4.38	4.71
2	Interpersonal Skills	4.39	5.00
3	Integrity	4.18	4.39
4	Transparency	4.31	4.30
5	Human Attribute Competency	431	4.60
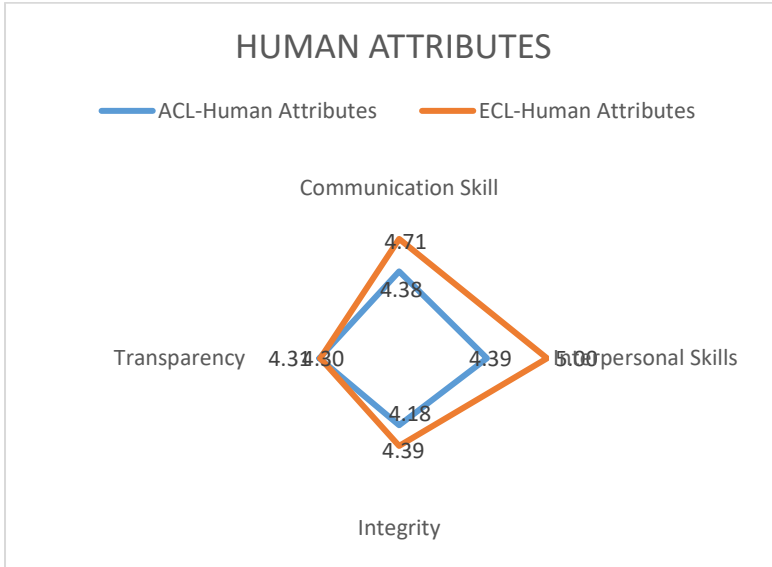
This graph shows that the discrepancy between the expected and actual human attribute competencies in the areas of integrity, transparency, interpersonal skills, and communication. It is clear that there are gaps between predicted and actual competencies in a number of important areas relating to human attributes.HR professionals fall short of the expected competency levels in the following human attributes:

- Communication Skill
- Interpersonal Skills
- Integrity
- Transparency

In contrast, the category of Human Attribute Competency, meet the desired competency level. These competency gaps indicate that HR professionals may benefit from targeted training and development in communication, interpersonal skills, integrity, and transparency. Enhancing these skills can contribute to their effectiveness in various HR roles, especially those that require strong communication, interpersonal relationships, and ethical conduct. Closing these competency gaps can lead to more proficient and well-rounded HR professionals within the organization.

Table 5. No.5 Descriptive Statistics – Training Need Analysis for Emerging Areas in HRM

Description	Frequency		Percentage	
	Yes	No	Yes	No
I Know NLP	50	83	37.6	62.4

I know HR Analytics	11	122	8.3	91.7
I use HR Analytics at work	7	126	5.3	94.7
I am aware of Green practice at work	61	72	45.9	54.1
I apply Green HR Practices	46	87	34.6	65.40

The survey results reveal varying levels of awareness and application of emerging areas in Human Resource Management (HRM) among the respondents. Natural Language Processing (NLP) and HR Analytics appear to be less familiar to the majority, with very few actively using HR Analytics at work. In contrast, a notable proportion of respondents are aware of Green practices, and a significant number apply Green HR Practices in their workplace. This data underscores the need for training and education, particularly in less familiar domains such as NLP and HR Analytics, to bridge the knowledge gap and empower HR professionals to leverage these emerging HRM practices effectively.

5   FINDINGS OF THE STUDY

The following are the major findings and observations
- Age and Competency Analysis: The Kruskal-Wallis tests indicate that there is a significant link between expected functional competency, actual and expected managerial competency, actual and expected human attributes, and respondent age. This suggests that competencies are influenced by age.
- For actual functional competency, there is no significant difference in distribution across age categories. However, for expected functional competency, there is a notable variation, indicating that expectations of functional competency change with age.
- Both actual and expected managerial competencies show significant differences in distribution across age categories, signifying that managerial skills, as well as expected managerial skills, vary with age.
- Similar to managerial competencies, both actual and expected human attributes competencies exhibit significant differences in distribution across age categories, highlighting age-related variations in these competencies.
- Functional Competency Gap: There is a slight gap between the actual and expected functional competencies across all functional competency areas. The largest gap is observed in Business Awareness, where the expected competency score is 4.53,

while the actual score is 4.30. This suggests that employees are slightly below the expected level in terms of business awareness. The overall small competency gap implies that employees, on average, are slightly less competent than what is expected in these functional areas. Training and development programs may help bridge this gap.

- Managerial Competency Gap: There is a noticeable gap between actual and expected managerial competencies, with shortfalls in various areas. HR professionals fall short of the expected competency levels in Stakeholder oriented, Planning Skills, Excellent Judgement, Leadership Skill, Delegating and Supporting skills, and Risk Taking abilities. However, they meet the expected competency levels in Managerial Competency and Concern for Excellence. To address these gaps, targeted training and development programs are recommended to enhance skills in the identified areas.

- Human Attributes Competency Gap: there is a difference between Actual and expected human attribute competences differ, especially in the important areas such as transparency, integrity, interpersonal skills, and communication skills. Programs for training and development aimed at improving these competencies may be helpful to HR professionals. HR professionals who meet these competency gaps may become more skilled and well-rounded.

- Training Need Analysis: The survey results show that the degree of awareness and application of emerging areas are different among the people. Few respondents actively use HR Analytics at work, and natural language processing (NLP) and HR analytics are comparatively less known among the population. On the other hand, a sizable portion of respondents are aware of green HR practices and its application in their workplace.

- The all shows the need for training and education in the areas such as NLP and HR Analytics to reduce the gap and help the HR professionals to influence these emerging HRM practices effectively.

- The study highlights the importance of age in analyzing the distribution of competencies, particularly when comparing the actual and expected competencies. It also emphasizes how important it is to use focused training and development initiatives to reduce competency gaps in functional, management, and human attribute domains. It also shows the potential benefits of training in the emerging areas of HRM to advance the HR professional's expertise in their domain.

6   SUGGESTIONS AND RECOMMENDATIONS

- Based on the findings and observations of the study, here are some suggestions and recommendations:

- Age and Competency Analysis: Organizations should consider different training and development programs to accommodate varying age groups, given the strong correlation that exists between age and competencies. While older employees might need training on managerial competencies and human attributes, younger employees might benefit from programs that concentrate on expected functional competency.

- Competency Gap: Organizations should put in place specialized training and development to fill the gaps identified in   functional, management, and human attributes.
- Competencies like Business Awareness, Organizational Awareness, Technical Skills, and External Awareness should be given top priority in these programs in order to improve employees' functional competencies and guarantee that they fulfill expectations. In order to increase their efficacy in managerial roles, HR professionals should be encouraged to participate in training programs that focus on improving their managerial proficiencies. Examples of these programs include Stakeholder oriented, Planning Skills, Excellent Judgment, Leadership Skill, Delegating and Supporting skills, and Risk Taking abilities. Furthermore, special attention should be given to human attributes like Transparency, Integrity, Communication skills, and Interpersonal Skills. Organisations can focus on the specific competency gaps and ensure that HR professionals acquires necessary competency to perform their role effectively and efficiently.
- Training Need Analysis: organizations should consider the following in order to overcome the disparities in the knowledge and utilization of developing HRM domains:
- Provide training in cutting-edge fields including HR Analytics and Natural Language Processing (NLP).
- Promote the adoption of green HR practices by sharing best practices and offering resources to support eco-friendly HR projects.
- Continuous Learning Culture: Organsations should promote a culture of continuous learning and growth, encouraging HR specialists to update of emerging HRM trends and technology. This can be accomplished through continued training and access to pertinent resources.
- Measurement of Impact: Assess the Impact of training programs by assessing the competency gap and identify the contributions to improve the performance of HR professionals the success of the organization.
- By implementing these guidelines and suggestions, organizations can increase the competencies of HR professionals and organizational effectiveness by leveraging innovative HRM practices, and adapting to changing expectations.

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