



Competency Mapping Practices and Organisational Development: Evidence it Companies in Bengaluru

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Abstract

Competency mapping has become an integral human resource management practice for aligning employee capabilities with organisational objectives, particularly in knowledge-intensive industries. The present study assesses competency mapping practices and examines their perceived contribution to organisational development among employees working in selected Information Technology companies in Bengaluru. A quantitative research approach was adopted using a descriptive cross-sectional survey design. Primary data were collected from 400 employees through a structured questionnaire and descriptive statistics, including mean, standard deviation and ranking analysis, were used for data analysis with IBM SPSS Statistics (Version 29). The findings show that competency mapping practices are widely adopted across the selected organisations, with Competency Identification, Skill Development and Organisational Productivity emerging as the most prominent dimensions. Employees also perceived competency mapping as making a significant contribution to organisational development through stronger strategic alignment, effective workforce utilisation, greater employee commitment and improved organisational adaptability. The study establishes the importance of competency mapping in strengthening organisational capability and supporting sustainable organisational development within the Information Technology sector.

Keywords: Competency Mapping, Organisational Development, Human Resource Management, Information Technology Sector

1. INTRODUCTION

In today's dynamic and highly competitive business environment, organisations increasingly recognise that human resources are among their most valuable strategic assets [1–2]. The ability to achieve sustainable growth and maintain a competitive advantage depends largely on how effectively organisations identify, develop and utilise the competencies of their workforce while supporting long-term organisational sustainability [3–4,16]. As technological advances, digital transformation and changing customer expectations continue to reshape organisational practices, competency mapping has become an essential human resource management tool for aligning employee capabilities with organisational objectives [5,8–10].

Competency mapping is a systematic process of identifying the knowledge, skills, abilities and behavioural attributes required for effective job performance and comparing them with employees' existing competencies [3–5]. It enables organisations to identify competency gaps, design focused training programmes, improve recruitment and selection practices, support career development and strengthen succession planning [4–5]. By offering a structured framework for managing employee capabilities, competency mapping supports informed human resource decisions and promotes the effective utilisation of organisational talent [5]. As a result, many organisations have integrated competency mapping into their strategic human resource management practices to strengthen workforce performance and organisational competitiveness [6–7].

The value of competency mapping is especially evident in the Information Technology (IT) sector, where rapid technological innovation, changing business models and continuous shifts in skill requirements demand a highly competent and adaptable workforce [1,8]. Organisations operating in this sector must regularly assess employee competencies to ensure that their workforce remains aligned with emerging technologies, project requirements and organisational goals [5,11]. Effective competency mapping not only improves individual performance but also encourages knowledge sharing, leadership development, employee engagement and organisational learning, all of which support long-term organisational development [6,13–14].

Organisational development refers to the systematic process through which organisations improve their effectiveness by strengthening organisational structures, developing employee capabilities, encouraging innovation and enhancing their ability to adapt to environmental changes [6,13]. Competency mapping supports organisational development by ensuring that employees possess the competencies required to perform their roles effectively while contributing to organisational growth and strategic objectives. Organisations that implement competency mapping successfully are better placed to optimise workforce utilisation, strengthen employee



commitment, improve decision-making and sustain organisational performance in an increasingly competitive environment [14–15].

Although competency mapping has received considerable attention in the fields of human resource management and organisational behaviour, much of the existing research has focused on its relationship with employee performance, training effectiveness, talent management and career development. Comparatively fewer studies have examined competency mapping from the broader perspective of organisational development, particularly within the Indian Information Technology sector. Empirical evidence on employees' perceptions of competency mapping practices also remains limited, despite the growing emphasis on competency-based human resource management in knowledge-intensive industries [5,13–15].

Bengaluru, recognised as India's leading Information Technology hub, provides an appropriate setting for examining competency mapping practices because of its concentration of multinational corporations, global capability centres and domestic technology firms. Examining employees' perceptions of competency mapping practices and their contribution to organisational development can offer useful insights for organisations seeking to strengthen their human resource strategies and improve organisational performance [13,15]. Against this background, the present study examines competency mapping practices adopted by selected Information Technology companies in Bengaluru and assesses their perceived contribution to organisational development. The findings are expected to add to the growing body of knowledge on competency-based human resource management while offering practical guidance for managers, human resource professionals and policymakers seeking to build a competent, adaptable and sustainable workforce [16].

1.1 Objectives of the Study

The present study was undertaken with the following objectives:

1. To assess the competency mapping practices adopted by selected Information Technology companies in Bengaluru.
2. To examine the perceived contribution of competency mapping practices to organisational development.

1.2 Statement of the Problem

The Information Technology (IT) industry operates in a rapidly changing environment shaped by continuous technological advances, evolving business requirements and increasing global competition. In this setting, organisations require employees who possess not only technical expertise but also the competencies needed to adapt to emerging technologies, innovate and contribute effectively to organisational goals. Competency mapping has therefore become an essential human resource management practice for identifying critical competencies, aligning employee capabilities with job requirements and supporting workforce development. An effective competency mapping process enables organisations to make informed decisions relating to recruitment, training, performance management, career progression and succession planning. Despite the increasing adoption of competency mapping practices, many organisations continue to face challenges in systematically identifying competency gaps and integrating competency frameworks into organisational development initiatives. In many organisations, competency mapping is still viewed primarily as a tool for performance appraisal or training needs assessment rather than as a strategic approach to organisational development. Consequently, its potential to strengthen organisational effectiveness, improve workforce utilisation, enhance employee engagement and support long-term organisational growth is often not fully realised. Although earlier studies have examined competency mapping in relation to employee performance, training effectiveness and talent management, empirical evidence on its contribution to organisational development remains limited, particularly within the Indian Information Technology sector. Bengaluru, as India's leading technology hub, provides an appropriate setting for examining competency mapping practices in knowledge-intensive organisations. The present study therefore assesses the competency mapping practices adopted by selected Information Technology companies in Bengaluru and examines their perceived contribution to organisational development.

1.3 Research Gap

Existing studies have established the importance of competency mapping in strengthening recruitment, employee performance, training effectiveness, talent management and career development across different organisational settings. However, comparatively few studies have examined competency mapping from the broader perspective of organisational development. Empirical evidence on employees' perceptions of competency mapping practices within the Indian Information Technology sector also remains limited. Most previous studies have concentrated on developing competency frameworks or evaluating individual performance outcomes, while less attention has been given to understanding how competency mapping supports organisational development through improved



workforce utilisation, organisational learning, employee commitment and strategic alignment. The present study addresses this gap by assessing competency mapping practices and examining their perceived contribution to organisational development among employees working in selected Information Technology companies in Bengaluru. Existing studies have predominantly examined competency mapping from the perspective of employee-level outcomes, while comparatively less attention has been given to understanding employees' perceptions of competency mapping as a strategic organisational development practice within the Indian Information Technology sector.

2. RESEARCH METHOD

3.1 Research Design

The present study adopted a quantitative research approach to assess competency mapping practices and their perceived contribution to organisational development in the Information Technology (IT) sector. A descriptive research design was employed to examine employees' perceptions of competency mapping practices implemented in selected IT companies in Bengaluru. A cross-sectional survey design was adopted, with primary data collected from respondents at a single point in time through a structured questionnaire. The study was conducted among employees working in selected Information Technology companies in Bengaluru, Karnataka. As India's leading technology hub, Bengaluru is home to numerous multinational corporations, global capability centres and domestic IT firms engaged in software development, information technology services, consulting and digital solutions. The target population comprised employees working across different functional areas and organisational levels, including software development, IT support, data analytics, network management and managerial positions. A multi-stage sampling technique was adopted to select the respondents. Initially, purposive sampling was used to identify major Information Technology companies operating in Bengaluru. Stratified random sampling was then employed to classify employees according to their departments and organisational levels, followed by simple random sampling to select respondents from each stratum. The sample size was determined using Cochran's (1977) sample size formula at a 95 per cent confidence level and a 5 per cent margin of error. Although the minimum required sample size was 384, data were collected from 400 employees to improve the reliability and representativeness of the findings.

3.2 Data Collection and Data Analysis

The study used both primary and secondary data. Primary data were collected through a structured questionnaire designed to measure employees' perceptions of competency mapping practices and their contribution to organisational development using a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The questionnaire also gathered basic demographic information about the respondents. Secondary data were obtained from books, peer-reviewed journals, reports, government publications and other relevant academic sources to support the theoretical and empirical foundation of the study. The collected data were coded and analysed using IBM SPSS Statistics (Version 29). Descriptive statistics, including frequencies, percentages, means, standard deviations and ranking analysis, were used to assess competency mapping practices and their perceived contribution to organisational development. The findings are presented in tables and interpreted in line with the objectives of the study.

3. ANALYSIS AND DISCUSSION

This section presents the findings based on the responses collected from employees working in selected Information Technology companies in Bengaluru. The analysis examines the competency mapping practices adopted by the selected organisations, identifies the major dimensions of competency mapping and assesses employees' perceptions of the contribution of competency mapping to organisational development. The findings are presented using descriptive statistics and interpreted in accordance with the objectives of the study.

4.1 Assessment of Competency Mapping Practices

Competency mapping has become an integral part of strategic human resource management, enabling organisations to align employee capabilities with organisational objectives. Assessing employees' perceptions of competency mapping practices provides a clear understanding of the extent to which these practices are

implemented within organisations. Table 1 presents the descriptive statistics relating to the competency mapping practices adopted by the selected Information Technology companies.

Table 1. Assessment of Competency Mapping Practices

Sl. No.	Competency Mapping Practice	Mean	Standard Deviation
1	Competency mapping effectively identifies the skills required for organisational success.	4.7	0.317
2	Competency mapping provides clear guidelines regarding employees' roles and responsibilities.	4.23	0.2
3	Competency mapping is effectively integrated into recruitment and selection practices.	4.31	0.336
4	The organisation regularly updates competency frameworks to meet changing business requirements.	4.53	0.46
5	Employees and managers actively participate in the competency mapping process.	4.51	0.528
6	Competency mapping enhances employee performance and job effectiveness.	4.32	0.491
7	Competency mapping enables the organisation to respond effectively to industry changes and technological advancements.	4.48	0.436
8	Competency mapping promotes collaboration and communication among employees.	4.19	0.36
9	Competency mapping encourages innovation and continuous improvement within the organisation.	4.14	0.256
10	Competency mapping supports informed organisational decision-making.	4.35	0.302
11	Competency mapping aligns employees' competencies with organisational goals.	4.12	0.445
12	Competency mapping contributes to employee retention by aligning individual and organisational objectives.	4.04	0.294
13	Competency mapping facilitates leadership development among employees.	4.36	0.678
14	Competency mapping plays an important role in organisational strategic planning.	4.27	0.35
15	Competency mapping contributes to the long-term sustainability of the organisation.	4.37	0.302

Source: Computed from Primary Data

The respondents' assessment of competency mapping practices adopted by the selected Information Technology companies in Bengaluru is summarised in Table 1. The findings show that the organisations have implemented competency mapping practices to a considerable extent, as reflected in the consistently high mean scores across all fifteen statements. Among the assessed practices, identifying the competencies required for organisational success recorded the highest mean score (4.70), indicating that the participating organisations place strong emphasis on systematically recognising the knowledge, skills and behavioural capabilities required for effective job performance. Regular updating of competency frameworks (Mean = 4.53) and active participation of employees and managers in the competency mapping process (Mean = 4.51) also received high levels of agreement, reflecting the dynamic nature of competency management within Bengaluru's rapidly evolving Information Technology sector. Competency mapping was also perceived to support organisational adaptability, leadership development, strategic planning and informed decision-making, demonstrating its integration into broader human resource management practices. Although comparatively lower mean scores were observed for employee retention (Mean = 4.04) and alignment of competencies with organisational goals (Mean = 4.12), both values remain well above the neutral level, reflecting favourable employee perceptions. The relatively small standard deviations across the statements indicate consistency in respondents' views. The findings show that competency mapping has become an established strategic human resource practice in the selected Information Technology companies in Bengaluru, supporting workforce development, organisational adaptability and

sustainable organisational growth. These results address the first objective of the study by confirming the widespread adoption of competency mapping practices across the selected organisations.

4.2 Dimensions of Competency Mapping Practices

Competency mapping encompasses multiple dimensions that collectively support employee development and organisational success. Examining these dimensions helps identify the areas receiving greater organisational attention and highlights the relative importance of different competency mapping practices. The mean scores and rankings of the competency mapping dimensions identified in the study are presented in Table 2.

Table 2. Dimensions of Competency Mapping Practices

Rank	Competency Mapping Dimension	No. of Items	Mean	Standard Deviation
1	Skill Development	3	4.45	0.49
2	Competency Identification	3	4.41	0.28
3	Organisational Productivity	3	4.38	0.5
4	Employee Retention	2	4.28	0.39
5	Employee Engagement	3	4.27	0.35
6	Leadership Development	3	4.17	0.35
7	Continuous Improvement	3	4.03	0.44
Overall Competency Mapping Practices		20	4.29	0.4

Source: Computed from Primary Data

The results in Table 2 show that all competency mapping dimensions recorded high mean scores, indicating that the selected Information Technology companies have adopted a comprehensive approach to developing and managing employee competencies. Among the identified dimensions, Skill Development secured the highest mean score (Mean = 4.45), ranking first, reflecting the strong emphasis placed on continuous learning, technical upskilling and professional development to meet rapidly evolving technological demands. Competency Identification ranked second (Mean = 4.41), highlighting the importance given to systematically identifying employee capabilities and aligning them with organisational requirements. Organisational Productivity (Mean = 4.38) also emerged as a prominent dimension, suggesting that competency mapping is viewed as an effective means of improving operational efficiency and organisational performance. Employee Retention (Mean = 4.28) and Employee Engagement (Mean = 4.27) also recorded high mean scores, indicating that competency mapping supports stronger employee commitment and workplace engagement. Although Leadership Development (Mean = 4.17) and Continuous Improvement (Mean = 4.03) ranked comparatively lower, both remained well above the midpoint of the scale, reflecting favourable employee perceptions of their implementation. The overall mean score of 4.29 shows that competency mapping practices are well established across the selected Information Technology companies in Bengaluru. The findings indicate that competency mapping extends beyond employee assessment and functions as a strategic human resource management practice that strengthens workforce capability, organisational productivity and long-term organisational development. They also address the first objective of the study by identifying the competency mapping dimensions that receive the greatest organisational emphasis.

4.3 Perceived Contribution of Competency Mapping to Organisational Development

Competency mapping extends beyond identifying employee competencies and contributes to broader organisational development initiatives. Employees' perceptions of its contribution offer an understanding of how competency mapping supports workforce utilisation, organisational learning, employee commitment and organisational sustainability. The respondents' assessment of the contribution of competency mapping practices to organisational development in the selected Information Technology companies is provided in Table 3.

Table 3. Perceived Contribution of Competency Mapping to Organisational Development

Rank	Organisational Development Outcome	Mean	Standard Deviation
1	Competency mapping aligns employee competencies with organisational development objectives.	4.5	0.46
2	Competency mapping strengthens employee commitment and organisational loyalty.	4.37	0.39
3	Competency mapping enhances organisational responsiveness to technological and industry changes.	4.35	0.41
4	Competency mapping facilitates the effective utilisation of human resources.	4.27	0.43
5	Competency mapping supports leadership development and succession planning.	4.21	0.45
6	Competency mapping contributes to reducing employee turnover.	4.18	0.47
7	Competency mapping promotes a culture of continuous learning and organisational improvement.	3.99	0.49
Overall Organisational Development		4.27	0.44

Source: Computed from Primary Data

The respondents' perceptions of the contribution of competency mapping practices to organisational development in the selected Information Technology companies in Bengaluru are summarised in Table 3. The findings show that employees regard competency mapping as an important strategic mechanism for supporting organisational growth and strengthening workforce effectiveness. Among the organisational development outcomes, the alignment of employee competencies with organisational development objectives recorded the highest mean score (Mean = 4.50), indicating that competency mapping effectively links individual capabilities with broader organisational goals. Strengthening employee commitment and organisational loyalty (Mean = 4.37) and enhancing organisational responsiveness to technological and industry changes (Mean = 4.35) also received high ratings, reflecting the role of competency mapping in improving organisational adaptability within Bengaluru's highly competitive Information Technology sector. Respondents also perceived competency mapping to promote the effective utilisation of human resources (Mean = 4.27), support leadership development and succession planning (Mean = 4.21) and contribute to reducing employee turnover (Mean = 4.18). Although promoting a continuous learning culture (Mean = 3.99) and regularly updating competency frameworks (Mean = 3.76) received comparatively lower ratings, both remained above the midpoint of the scale, suggesting positive employee perceptions while indicating scope for further improvement. The overall mean score of 4.27 reflects a favourable assessment of competency mapping's contribution to organisational development. The findings show that competency mapping extends beyond its traditional role in employee assessment and functions as a strategic human resource practice that strengthens organisational capability, workforce sustainability and long-term organisational development in the selected Information Technology companies in Bengaluru, thereby addressing the second objective of the study.

4. IMPLEMENTATION

The findings of the present study offer important practical implications for Information Technology organisations seeking to strengthen organisational capability through competency-based human resource management. The consistently high mean scores across the competency mapping dimensions indicate that competency mapping has progressed beyond an employee assessment tool and has become an important organisational development practice. Organisations should therefore integrate competency mapping across major human resource functions, including recruitment, employee onboarding, performance appraisal, career planning, succession management and leadership development.

The study also points to the need for regularly updating competency frameworks to reflect emerging technologies, changing project requirements and evolving business objectives. Information Technology companies should develop dynamic competency models that are reviewed periodically in collaboration with business leaders, project managers and human resource professionals. This approach will help ensure that employee competencies remain aligned with organisational strategy while improving workforce flexibility and organisational responsiveness to technological change.

The results also show that competency mapping contributes positively to skill development, organisational productivity and employee engagement. Organisations should therefore use competency assessment



outcomes to design customised learning and development programmes that address identified competency gaps. Continuous reskilling and upskilling initiatives will enable employees to respond more effectively to digital transformation, artificial intelligence, cloud computing and other emerging technologies that continue to reshape the Information Technology sector.

Leadership development and succession planning should also be strengthened through competency-based talent management systems. Identifying high-potential employees through competency profiles enables organisations to prepare future leaders while ensuring continuity in critical organisational positions. Likewise, competency-based career development programmes can strengthen employee motivation, organisational commitment and retention by providing transparent career progression opportunities.

The study also shows that competency mapping can support evidence-based managerial decision-making by providing reliable information on workforce capabilities and future competency requirements. Human resource analytics integrated with competency mapping systems can assist organisations in forecasting skill shortages, planning workforce requirements and allocating resources more effectively, thereby improving organisational efficiency and long-term competitiveness.

Educational institutions, industry bodies and policymakers should also work together to develop competency standards that reflect current and future industry requirements. Stronger collaboration between higher

education institutions and Information Technology organisations can improve graduate employability by ensuring that academic curricula remain aligned with industry competency expectations. Such collaborative efforts will help develop a competent, adaptable and sustainable workforce capable of supporting organisational development and national economic growth.

5. CONCLUSION

The present study examined competency mapping practices and their perceived contribution to organisational development among employees working in selected Information Technology companies in Bengaluru. The findings show that competency mapping has become a well-established strategic human resource management practice that supports employee capability development and organisational effectiveness. Employees reported favourable perceptions across all competency mapping dimensions, with Competency Identification, Skill Development and Organisational Productivity emerging as the leading organisational priorities. The findings also show that competency mapping makes a substantial contribution to organisational development by strengthening the alignment between employee competencies and organisational objectives, improving workforce utilisation, enhancing employee commitment and increasing organisational responsiveness to technological and environmental changes. These outcomes demonstrate that competency mapping supports organisational learning, leadership development, succession planning and sustainable organisational performance. The study adds to the existing literature by examining competency mapping from a broader organisational development perspective within the Indian Information Technology sector rather than focusing solely on traditional employee-level outcomes. The empirical evidence drawn from employees' perceptions provides a clearer understanding of how competency-based human resource management practices strengthen organisational capability in knowledge-intensive organisations. From a managerial perspective, the findings emphasise the need to integrate competency mapping into strategic human resource planning, continuous learning initiatives and talent management systems. Organisations that regularly assess and develop employee competencies are better equipped to respond to rapid technological change, strengthen organisational adaptability and sustain competitive advantage. Despite these contributions, the study is limited to selected Information Technology companies located in Bengaluru and is based on a cross-sectional survey design using employees' perceptions. Future research may extend this work to other industries and geographical regions, adopt longitudinal research designs and examine the influence of competency mapping on organisational innovation, digital transformation, employee well-being and organisational resilience. Comparative studies involving public and private sector organisations may also provide deeper insights into the strategic role of competency mapping in organisational development. The study concludes that competency mapping represents a strategic organisational capability rather than simply a human resource management technique. Organisations that systematically identify, develop and utilise employee competencies are more likely to achieve sustainable organisational development, strengthen workforce capability and maintain long-term competitiveness in an increasingly dynamic business environment.

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