A STUDY ON ASSESSMENT OF SKILL GAP TO ENHANCE WORKFORCE PERFORMANCE OF IT EMPLOYEES IN COIMBATORE CITY

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ABSTRACT

The success of any organization hinges on the capabilities of its workforce. In an era marked by rapid technological advancements and shifting industry demands, organizations face a growing challenge: bridging the skill gap to enhance workforce performance. A skill gap refers to the discrepancy between the skills employees currently possess and those required to meet organizational goals effectively. Addressing this gap is critical for maintaining competitiveness, fostering innovation, and achieving strategic objectives. This study explores the assessment of skill gaps within organizations as a means to enhance workforce performance. By conducting a comprehensive skills gap analysis, organizations can identify deficiencies in both hard and soft skills, enabling targeted interventions such as upskilling, reskilling, and strategic hiring. The research focuses on IT employees in Coimbatore City, using a mixed-method approach involving surveys and secondary data. Findings suggest a clear need for skill development initiatives in areas like data analytics and cybersecurity, and highlight the importance of hybrid learning models and generational collaboration for optimal workforce performance.

Keyword: *Skill gap, IT employees, workforce performance, upskilling, Coimbatore*

1. INTRODUCTION

The persistent and widening skill gap represents a critical challenge for organizations globally, impacting workforce performance, productivity, and competitiveness. This research explores the importance of addressing skill gaps to ensure a future-ready workforce. By identifying both technical and soft skill deficiencies, this study provides actionable insights into how organizations can effectively bridge the gap through training, continuous learning, and strategic workforce development.

1.1 STATEMENT OF THE PROBLEM

The skill gap, driven by rapid technological changes and evolving industry needs, hampers employee performance and organizational growth. Despite awareness, many firms lack structured solutions due to limited training resources, resistance to change, and generic development programs.

1.2 SCOPE OF THE STUDY

Focused on IT professionals in Coimbatore, the study examines skill gaps across roles, with emphasis on both technical (e.g., cloud computing, cybersecurity) and soft skills (e.g., communication, leadership).

1.3 OBJECTIVE OF THE STUDY

1) To analyze the technical and soft skill gaps that exist among IT employees in Coimbatore and their impact on individual job performance and overall organizational productivity.
2) To examine the effectiveness of current training and development programs in addressing skill deficiencies and meeting workforce development needs.
3) To examine employee perceptions and preferences regarding skill development initiatives, including preferred training formats and self-assessment methods.

1.4 Limitations of the Study

1) Limited to Coimbatore-based IT employees
2) Data relies on self-reported responses, potentially biased
3) Focuses on current, not future, skill demands

1.5 Research Methodology

Descriptive in design, this study uses both primary data (survey of 50 IT professionals) and secondary sources (industry reports). Analysis tools include percentage analysis and ANOVA to interpret the distribution and impact of skills across job roles. Sampling Technique: The study used convenience sampling, selecting IT professionals who were readily accessible and willing to participate.

REVIEW OF LITRATURE:

Whatfix (2025) "The Growing Challenge of Skill Gaps in the Era of Digital Transformation" emphasized that 69% of HR professionals acknowledge skill gaps as a rising concern, largely driven by digital transformation and emerging technologies such as AI and big data. The research aimed to highlight the necessity of skill gap analysis for future-proofing organizations and enhancing recruitment strategies. The study employed a quantitative survey-based methodology, gathering structured responses from HR professionals across various industries to assess their perceptions and the evolving nature of workforce competencies.

BetterUp (2025) "Structuring Skill Gap Analysis for Future Organizational Needs" described skill gap analysis as a structured and strategic process for comparing current employee competencies with future workforce requirements. The research highlighted essential steps such as defining the scope, identifying critical skills, and using tools like surveys and performance evaluations. This study used a descriptive case study methodology, drawing insights from organizational practices and expert consultations to construct a practical framework for skill gap analysis.

Coursera (2024) "Competency Gap Analysis for Strategic Workforce Alignment" focused on how competency gap analysis helps align employee skills with organizational goals, ultimately boosting productivity, engagement, and cost efficiency. It emphasized the importance of evaluating both technical and soft skills. The research followed a mixed-methods methodology, combining platform usage analytics to quantify learning behaviors with qualitative survey feedback to assess perceived competency improvements.

DATA ANALYSIS AND INTERPRETATION

Data collected from 50 IT employees was analyzed using percentage and ANOVA tests. Key findings include:

- 76% of respondents are aged 18–24
- 62% are female
- 44% are entry-level professionals
- 60% expressed confidence in their skills, but 40% were neutral

- Top skill gaps: Data Analysis (32%), Cybersecurity (24%)
- 46% had no formal training but desired it
- 50% prefer hybrid training formats
- ANOVA showed no significant variation in skills by designation

ANOVA - Rate your proficiency in the following areas (1 = Very Poor, 5 = Excellent):

Technical Knowledge					
Factors	Sum of Squares	df	Mean Square	F	P
Designation	4.940	3	1.647	1.231	0.309
Residuals	61.560	46	1.338		
Note: **Type III Sum of Square**					

Interpretation:

- F = 1.231, p = 0.309
- The differences in self-rated technical knowledge across different designations are not statistically significant (since p > 0.05). This suggests that job designation does not have a meaningful effect on how individuals rate their technical knowledge.

Leadership/Management					
Factors	Sum of Squares	df	Mean Square	F	P
Designation	4.069	3	1.356	0.860	0.468
Residuals	72.511	46	1.576		
Note: **Type III Sum of Square**					

Interpretation:

- **F = 0.860**, **p = 0.468**
- Again, there's **no significant difference** in leadership/management proficiency ratings across designations. The variation is likely due to random chance rather than job role.

Time Management					
Factors	Sum of Squares	df	Mean Square	F	P
Designation	11.265	3	3.755	2.387	0.081
Residuals	72.355	46	1.573		
Note: **Type III Sum of Square**					

Interpretation:

- **F = 2.387**, **p = 0.081**

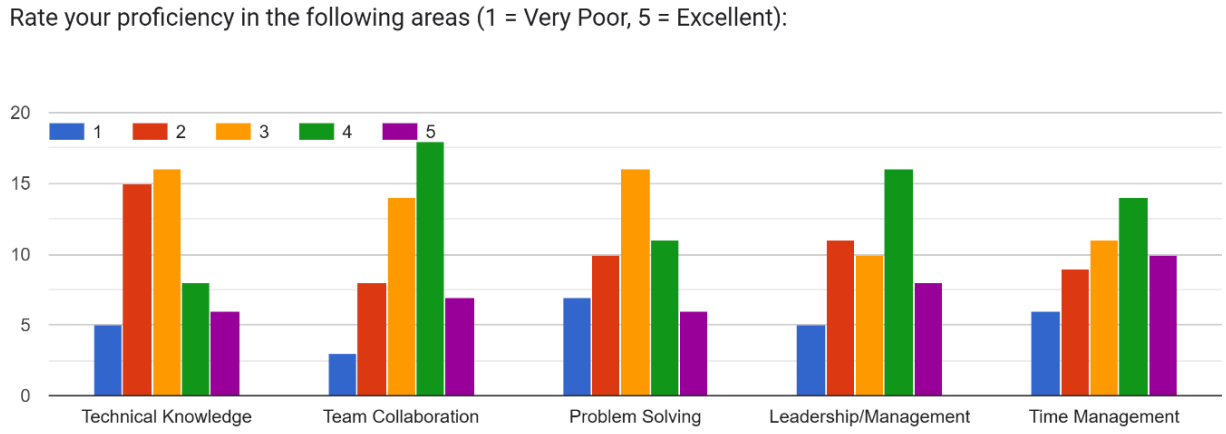
- This one is interesting. While still **not statistically significant at the conventional 0.05 level**, it's **approaching significance**. It may suggest that there **could be some differences** in time management ratings between designations, and it might be worth further investigation or a larger sample size.

Problem solving					
Factors	Sum of Squares	df	Mean Square	F	P
Designation	2.022	3	0.674	0.437	0.728
Residuals	70.958	46	1.543		
Note: **Type III Sum of Square**					

Interpretation:

- **F = 0.437**, **p = 0.728**
- Strong evidence that there is **no significant difference** across designations in problem-solving self-assessment.

Designation does not significantly affect how individuals rate their proficiency in any of the four areas, although time management shows a possible trend that may merit further exploration.



FINDINGS

- High interest in skill development despite limited access
- Training programs viewed neutrally; room for enhancement
- Preference for hybrid formats and personalized learning
- Generational differences affect team collaboration

SUGGESTIONS

- The organization should provide regular and targeted training programs to enhance technical skills, especially in areas like Data Analysis and Cybersecurity.

- Companies should adopt hybrid learning models to suit the flexible learning preferences of employees and improve training participation.
- Management should take initiatives to align employee skills with job demands through continuous assessment and personalized development plans.
- Organizations should focus on career growth and advancement opportunities to retain talented entry- and mid-level employees.
- The management should foster intergenerational collaboration through team-building activities and inclusive work practices.

CONCLUSION

This study reveals the need for IT organizations in Coimbatore to proactively bridge skill gaps through structured learning, inclusive practices, and continuous performance tracking. Addressing these needs can significantly improve productivity and job satisfaction.

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