

A Conceptual Study on Skill Gap Assessment on Professional abilities of IT Employees

¹Dr. C. Thirumal Azhagan, ²J.Kingsta Christobell

¹Assistant professor, ²Final year MBA Student
Department of management studies
University college of engineering, BIT Campus, Trichy

Abstract: The era of business environment impulse companies to undergo revamp to remain competitive. Many companies that are seek to expand their development and production process with the help of the skilled workforce. The primary objective of this research study is to evaluate the skill gap practices in the IT industry with referred to the cognitive skills, social and emotional skills, power skills, learning skills and facilitating skills of an individual to fit in the job role with accordance with the quality of performance and the learning assistance provided in a company

Index Terms: Skill gap, IT industry, Cognitive skills, facilitating skills, social and emotional skills, power skills and learning skills.

I. Introduction

A developing country like India is a promising country where opportunities are present everywhere. The skills are the most predominant one in every industry. Information technology industry is ever blooming industry, in which the skills of an employees are the most important factor to determine the success of the company. Those days they concentrate more on problem solving skills, decision making skills, communication skills, Interpersonal skills and technical skills but as the world spinning fast the IT industries upgrade their specific requirements to the next level. Now a days they mainly focus on cognitive skills, social and emotional skills, power skills, learning skills, facilitating skills of an employees for the mutual benefit for both company and employees.

According to times of India, 92% of employees believe India suffers from skill gap. The skill gap in the organization can be defined as the gap which does not allow to grow or to remain competitive as it is unable to find employees with right knowledge to fit into job. Thus, the performance of the company will be hampered by skill gap due to low productivity and lack of quality. The skill concept from employee and employer are the production process with main focus on the complexity of the activities which are bundled into job. In order to perform these complex tasks, greater learning and high skills are needed. Skill gap describes the situation in which workers skills are incompetent for doing the job. There is a lack of interest in employees for doing the assigned work done by employer. Skill gap has the potential to decrease the company's productivity level and increase the company's expenses. Measuring the expected skills and employees' ability to perform, the job is important to improvise performance and to achieve objectives of the company

Skill gap

The skills gap is the ongoing issue amongst IT professionals as the industry struggles to find a rapid solution to succeed. Skill gap has the possibly lower the company's productivity level and increase the company expenses. More than half of the IT professionals saw the skill gap as major issues in the sector which as a huge impact that it either slow down the growth of the company or posed it to an existential crisis. Decade ago, companies focus mainly on problem solving skills, Communication skills, Decision making skills, technical skills and interpersonal skills. The World Bank's Draft World Development Report 2019 underlines how adult learning programs constantly fall short of their intended impact. Now a days all those skills are acquire by a graduate in the college days itself and technical skills such as Data visualization, Machine learning techniques, Data mining, Data modelling, Data cleansing/preparation, Research methods and empirical validation, Neural networks, Data processing, Statistical analysis, Data integration, Data management, Predictive modelling Algorithms/Programming, Data warehousing, Cloud computing, Other artificial intelligence techniques, Web-based application development, Multiple structured programming, Distributed-programming and computing, Querying languages, Natural language processing can be even taught by professional courses online and offline but, survival in the competitive world remain unchanged.

As per the ISR Report of India 2021, BFSI, Software/Hardware & IT and Internet businesses followed by pharma and healthcare sectors hired the most and women has secured higher employability rate than men. The skill gap that emerged with the covid-19 pandemic has given rise to online computer courses, language classes, online skill assessment. The IT sector that admit a practical exposure to the latest technologies that gained popularity in the last 5 years are cloud computing, data science, and natural language processing are in high demand, owing to large skill gaps in these areas.

Cognitive Skills

The cognitive skills are the core skills, in which brain uses to think, read, learn, remember, reason and pay attention which can be broadly categorized into two namely basic and advance cognitive skills. It plays a crucial role in every domain. The advanced cognitive skills like Logical reasoning, processing speed, sustained attention, working memory, visual and auditory perception, executive function, critical thinking, Language processing, Ethical thinking, understanding, cognitive flexibility, knowledge, metacognition, estimation and evaluating, creativity is very much needed in each and every role of the IT industry. Now a days, some employees are struggling to cope up with the person who having high cognitive skills among all. Employee with strong cognitive skills can learn quickly, handle multiple complex tasks simultaneously and be highly productive without much

supervision. These skills matter because they help the person to recognise patterns, analyse and solve problems, better understanding and speed up comprehend information, brainstorm effectively and have persistent attention. More over strengthening the cognitive skills helps in creative solutions to challenges. The benefits of cognitive skills in workplace for individual are reducing the stress level.

Social-emotional skills

Social and emotional skills have been shown to influence many important life outcomes, but also to influence the development and use of cognitive skills. The social-emotional skills deal with five majors categorized in it namely Emotional regulation, collaboration, open- mindedness, engaging with others and task performance which can cover up sub topics like stress resistance, optimism, emotional control, empathy, trust, cooperation, curiosity, tolerance, creativity, sociability, assertiveness, energy, self- control, persistence, Responsibility. Each of the scale or classes encompasses a cluster of reciprocally connected social and emotional skills. For instance, task performance includes action orientation, reliable ness, self-control and persistence. except demonstrating their mutual similarity, these groupings additionally guarantee systematic, comprehensive and balanced thought of individuals social and economic skills. All these things are important when a person works in the group or teams at the work environment, this helps the employer and employee more in the socio- professional mannerism which leads them to get more wide knowledge about the topics going on the workplace and helps them in more acceptable and adaptive nature.

Power skills

In the hybrid work world, the term, power skills are added to the soft skill. Power skills are the most in -demand skills which would shape the future of people and the organization and the employee's most needed in the modern work environment. The most common power skill attributes are problem solver, decision making, judgement, communication, self-management, collaboration, vision. In recent trends the power skills mainly focusing on the leadership ability, strategic thinking, productivity. The employees with the power skills can solve persistent challenges, vicarious emotion towards customers and their colleagues and can efficiently complete their tasks within the given time by using proper strategies. 95% of organizations believe soft skills or power skills are as important as hard skills, key findings from a survey of 180 companies across the APAC region by Pearson.

Learning skills

The learning is the integral part of every day, In the IT industry the learning skills can be acquired from three different aspects: Analytical skills, technical skills and knowledge area. The knowledge area would be Testing, Requirements, configuration Maintenance, Software Engineering Models and Method, Software Design which can be sub categorized into Software Requirements Engineering, Software Testing and Quality Assurance, and Software construction. The tier 2 companies like Accenture, Zoho, HCL, Cognizant provides their employees learning assistance like third party website from employee welfare would help them to move forward to reduce the skill gap in employees. The future technologies such as AI, Amazon AWS, Cloud computing, Block chain technologies would be taught in advance to create a competitive advantage of the company. Creating a learning environment makes the employees a strong skilled workforce in turn they help the organisation in a productivity way with a little expense of training and development of employees.

Facilitating skills

An employee who has an ability to manage groups, strong listing skills, well verst in oral and written communication, thinking out of the box in crisis, neutrality in conflicts, creating a focus among the group, preparedness, empathetic, managing time can be called as facilitator commonly called as outspoken leader. Facilitating skills enables the person to help group of people working together effectively and productively. Practising these things can help the employee in their job to make progress and achieve success. There several reason to have these facilitating skills in the individual at the workplace, it helps to resolve conflicts, making process, inspiring success. An employee can easily develop these facilitating skills in them by developing their strengths, acknowledge their weakness, seeking opportunities to facilitate, think about the progress frequently.

II. Conceptual framework

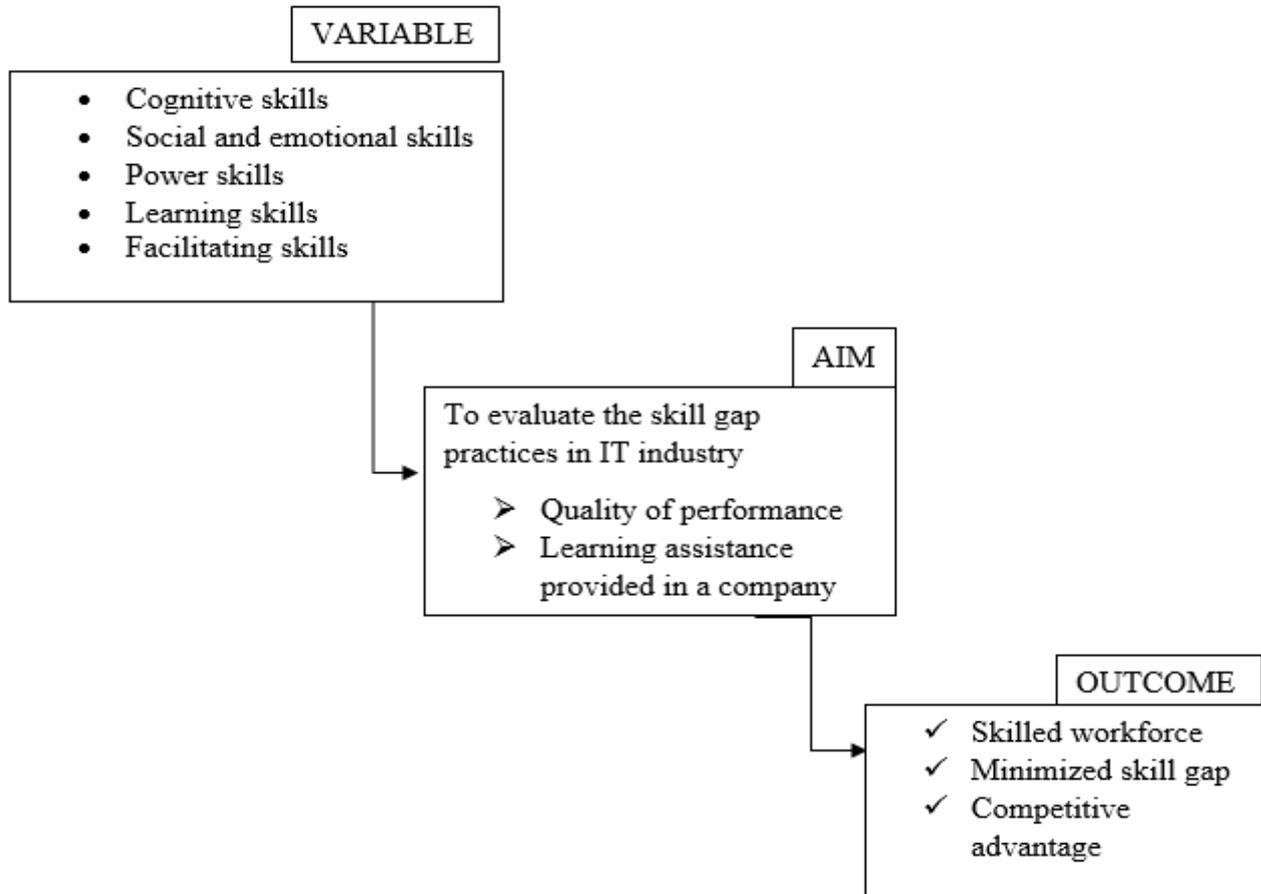


Fig.1

III. Conclusion

This article aims to raise awareness on the professional skills of the employees to survive in the highly competitive world and to gain insight knowledge about the recent growing crisis skill gap in the IT industry the research has been conducted. This paper may be useful to evaluate the skill gap in which the employees are lagging where that becomes the stumbling block of the company to move forward in the hierarchy and overcome the lagging skill gaps in employees.

Reference:

- [1] Sipra karmakar, Bibhunandini das (2022). Skill gap in various sector-A review. *EPRA International Journal of Multidisciplinary research (IJMR)*-Peer Reviewed journal, Volume-7, Issue-1, ISSN(Online)2455-3662
- [2] Zdenka milic zepic (2021). Improvement of cognitive abilities of order employees with computerized cognitive training (CCT). *IFAC Paper online 54-13(2021)651-656. Science direct, Elsevier*
- [3] Vahid Garousi, Gorkem Giray, and Eray Tuzun. 2019. Understanding the Knowledge Gaps of Software Engineers: An Empirical Analysis Based on SWEBOK. *ACM Trans. Comput. Educ.* 20, 1, Article 3 (November 2019), 33 pages. <https://doi.org/10.1145/3360497>
- [4] Patrick mikalef, John Krogstie (Norwegian university of science and technology) (2019). *IEEE Xplore*.
- [5] Seamus MC Guinness and Luis Ortiz (2016). Skill gaps in the workplace: Measurement, determinants and impacts. *Industrial relations Journal*, ISSN 0019-8692
- [6] Jorg ploger and Sabine weck (2013). Confronting out-migration and the skill gap in declining German cities. *ILS-Research institute for regional and urban development, Dortmund, Germany*
- [7] Shivaramu, Manjunath & Murthy, M B Shraavan & Dechakka. (2019). "A Study on Assessment of Skill Gap to Enhance Workforce Performance." *International journal of management, technology and engineering, volume IX, issue. No.2249-7455.*

Web- reference

1. <https://www.indeed.com/>
2. <https://moodle.com/news/lugar-de-trabajo-aprendizaje-tendencias-poder-habilidades/>
3. <https://www.peoplesmatterglobal.com/article/skilling>
4. <https://work.chron.com/employee-development-cognitive-skills-24502.html>
5. <https://timesofindia.indiatimes.com>