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SKILL GAP ANALYSIS OF IT SECTOR EMPLOYEES IN CHENNAI

S. Nagarajan [1] and S. Jahira Parveen [1,*]

[1] Faculty of Management, SRM Institute of Science and Technology, Kattankulathur, Chengalpattu District, Tamil Nadu - 603 203, India.

[*] **Corresponding author**: jahiraps@srmist.edu.in

Abstract

Chennai has emerged as a worldwide hub for technological innovation and growth as a consequence of the proliferation of information technology. Concerns about the industry's competitiveness, the workforce's employability, and the sustainability of development are raised by the growing skill gap among IT professionals. This research aims to investigate the main causes of skill gaps. Employer expectations, incompatibilities between academia and industry, the speed at which technology is developing, and a dearth of opportunity to advance one's abilities are some of the excuses. A thorough analysis of technical and soft skill shortages includes the domains of artificial intelligence (AI), cloud computing, cybersecurity, DevOps, and problem-solving. a few subjects that were discussed. The government's approach to skill development, the labour force's demographics, and the talent deficit are all examined. Both the supply and demand for talent are assessed in this study. The results underscore the need of a partnership between academic institutions and companies, ongoing education, and policy-driven skill development. These issues must be resolved before Chennai's information technology cluster can become digitally competitive. Training, preparation, and career prospects for workers will all be improved.

Key words: Skill Gap, IT Sector, Chennai, Digital Economy, Cloud Computing, Emerging Technologies, Artificial Intelligence, Workforce Readiness, Up skilling.

Introduction

The information technology (IT) sector has been a driving force behind global innovation, digital transformation, and economic success. Over the course of the last several decades, it has become more significant in a variety of industries, including as manufacturing, telecommunications, healthcare, education, and finance [1]. As a result, there has been an increase in the need for individuals who possess the necessary abilities. Chennai, which is sometimes referred to as the "Gateway to South India," has developed into a significant hub for information technology, which results in the city attracting research institutions, startups, and multinational organisations. This is due to the city's well-established infrastructure, highly skilled workforce, and appealing business environment, all of which are contributing factors towards this result. The city is home to some of the most well-known information technology companies in India, including TCS, Infosys, Wipro, Cognisant, and HCL, making it one of the areas that has made the most significant contributions to India's digital economy [2]. Nevertheless, the company is confronted

with a significant obstacle, which is the rising skill gap among information technology professionals. This phenomenon occurs despite the rapid development of the company and the enormous pool of available labour. A pace that has never been seen before is being caused by technological improvements, which is driving the gap between the skills of workers and the expectations of the sector to increase. This emphasises that it is essential to make an effort to acquire new abilities and to seek learning that continues throughout one's life.

A "skill gap" is a term that is used to describe the disparity that exists between the talents that a person has and the competences that companies need from their workforce. Due to the swift development of new technologies like artificial intelligence (AI), machine learning, cloud computing, cybersecurity, blockchain, big data analytics, and the Internet of Things (IoT), this imbalance is expanding in the information technology business [3]. Increasingly, companies are looking for professionals that not only have knowledge of cutting-edge themes but also have expertise in areas such as software development, agile methodologies, DevOps processes, and cybersecurity measures. On the other hand, a significant number of workers in the information technology industry have difficulty keeping up with the persistently altering market trends, which is one of the factors that contributes to Chennai's shortage of trained professionals. Furthermore, in the current context of information technology, strong soft skills such as problem-solving, critical thinking, flexibility, and effective communication are equally as vital as talents that are technically competent. A significant number of companies face the issue of recruiting candidates that possess a mix of technical and interpersonal abilities that is well-balanced. The performance of the organisation, its capacity for innovation, and its general competitiveness in the international market are all strongly influenced by this challenge.

This research not only has an impact on the long-term survival and competitiveness of the information technology sector in Chennai, but it also has an impact on the personal and professional development of the individuals who participated within it. A workforce that is highly competent increases productivity, accelerates technical innovation, and strengthens the city's position as a leading site for the creation of software and the provision of information technology services. Employee retention rates, talent shortages, and efficiency gains are some of the outcomes that may be expected from businesses that make investments in upskilling their workforce [4]. It is possible for governments and educational institutions to make use of the findings of this study in order to develop skill-building efforts, modifications to curricula, and public-private partnerships that are tailored to meet the requirements of certain industries. If a comprehensive workforce development plan is put into place, the information technology sector in Chennai has the potential to overcome the skills gap that currently exists, provide new employment opportunities, and be a driving force behind sustainable economic growth. During this period of rapid technological advancement, all of this is not only possible but also practicable.

Review Of Literature

For the purpose of this article, the findings of the study will be examined, together with the essential skill set that is necessary to secure employment in the organised grocery and vegetable retail sector and to maintain employment after it has been obtained. The notion of "employability," which is defined as having academic and occupational qualities that are both marketable and quickly accessible in order to develop work chances, was the major subject of discussion during the whole of the presentation. This was done in order to produce employment opportunities. An exploratory research study was conducted with the objective of establishing the skill set that is

necessary for entry-level positions in organised grocery and vegetable selling businesses [5]. The study was carried out with the intention of determining the skill set that is needed. In this particular research endeavour, the tools that were used were a questionnaire in addition to an in-person interview. The study was conducted with the intention of gaining a knowledge of and determining the abilities that are necessary for entry-level professions in organised grocery and vegetable sales. The development of a talent matrix and employability skill set was done with the intention of preparing persons for entry-level professions in the organised grocery and vegetable sales sector. They were produced on the basis of study that was conducted. In the current moment, the persons who are functioning in these positions are members of the organisation. The goal of this research is to give a complete method for choosing candidates for management positions at the store level. This will be accomplished via the use of the Analytic Hierarchy Process (AHP). When faced with a decision-making task that contains a large number of criteria, the AHP approach is used to establish the traits that must be taken into account when picking persons who will be working for the organization. This is done in order to ensure that the best possible candidates are selected [6]. In the not-too-distant future, there will be a wide variety of educational opportunities accessible to prospective students. It is possible to take into consideration a number of different alternatives, including the analysis of the varied or full profiles of retail professions, as well as the effect of regional employability on employment in the organised grocery and vegetable sectors.

Because it supplies the necessary cash for a variety of different economic sectors, the banking and financial sector is seen as an essential component in the growth of the economy and the country as a whole. This is because it is responsible for providing the cash that is needed by these sectors. As a result of the fact that this is a service-oriented business, the level of productivity of the employees has a direct influence on the quality of the services that are now being provided. It was possible for the banking firm in Chennai to achieve its realistic pattern modification goals as a consequence of the changes that were made to the banking sector and the deregulation of the economy in the year 1998. In reaction to the persistent insolence of the Reserve Bank of India (RBI), the banking industry in Chennai was developed to correspond to the criteria specified by the Basel Accords. This was done in order to compensate for the RBI's attitude. This rule was designed in order to accomplish the goals of improving prudential requirements, decreasing the degree of legislative pre-emption, and allowing directed credit limitations to be implemented in accordance with priority sector lending legislation [7]. It is vital for the banking industry to make significant changes to the fundamentals of human resource development and management in order for it to be able to properly meet its commitments. The study had a number of major goals, one of the most important of which was to evaluate the impact that the performance and perception of workers had on the public sector banks that had their headquarters in Chennai. For the purposes of this research, the only banks that are analysed are those that are under the jurisdiction of the public sector. When doing this study, Chennai is also taken into mind. This research analyses how individuals feel about their careers and how they are effective in executing their professions. The focus of the investigation is on workers of public sector banks in Chennai, with a specific emphasis on those employees. It was determined that the investigation had both descriptive and analytical aspects, and this conclusion was reached on the basis of the results of the investigation. When taking into consideration this topic, it is not feasible to emphasise the significance of both primary and secondary sources of information.

The word "competence mapping" is one of the most sought-after phrases in the field of human resources, and this is true regardless of the kind of company that is being discussed. Since the

beginning of time, competence mapping has been seen as an essential step in the process of determining the degree to which a person is employable [8]. The reason for this is because the technique relies on critical thinking. The procedure that is used to establish whether or not there is a mismatch between the personal characteristics of an employee and the skills that the organisation expects from them remains the same, despite the fact that job descriptions and job types may change from one another. The current research made an effort to reach this purpose by performing a competence gap analysis among a total of one hundred fifty workers of a private manufacturing firm based in Chennai, Tamil Nadu. The study was conducted in an effort to attain this objective [9]. The use of radar analysis throughout the whole of the research process made it possible to ascertain the competence gap and to assess the skill set that was selected by the team. As evidenced by the results of the present study, it would seem that there is not much of a difference between the levels of competence that were predicted and those that were actually displayed by workers. This is the apparent conclusion that can be drawn from the data. This leads one to the conclusion that the company now employs competent people who also exhibit less departures from the required level of competence [10]. This is the conclusion that can be reached from this. In the event that the criteria for training are established in advance, it is feasible that these variations will be avoided.

Factors Contributing to Skill Gaps in Chennai's IT Industry

Even though Chennai's information technology sector has developed into a critical centre for global technology and innovation, there is still a considerable skill gap that impacts worker productivity, employability, and industrial competitiveness. This gap has adverse effects on all three of these factors. There are a number of interconnected factors that contribute significantly to this disparity. Some of these factors include the mismatch between the educational system and the business world, the rapid expansion of the industry, the lack of worker readiness, persistent gaps in training and upskilling, rising employer expectations, and the impact of government and policy. As shown in Figure 1, one of the most fundamental problems is that curriculum at educational institutions are not aligned with the requirements of the business world. Many educational institutions continue to use antiquated curriculum, which restricts the opportunities for students to engage in problem-solving situations and practical applications that are relevant to the real world. Additionally, graduates often fail to recognise the significance of soft skills such as flexibility, communication, and collaboration, which makes it challenging for them to satisfy the requirements of various work contexts that are always evolving. At the same time, the sector is undergoing a fast transformation as a consequence of the introduction of novel technologies like as blockchain, cloud computing, cybersecurity, and artificial intelligence. These technologies are causing employment positions to be reshaped and necessitating the creation of new skill sets. However, many professionals find it difficult to keep up with these advancements since they have limited access to specialized training and certifications. This makes it difficult for them to remain current.

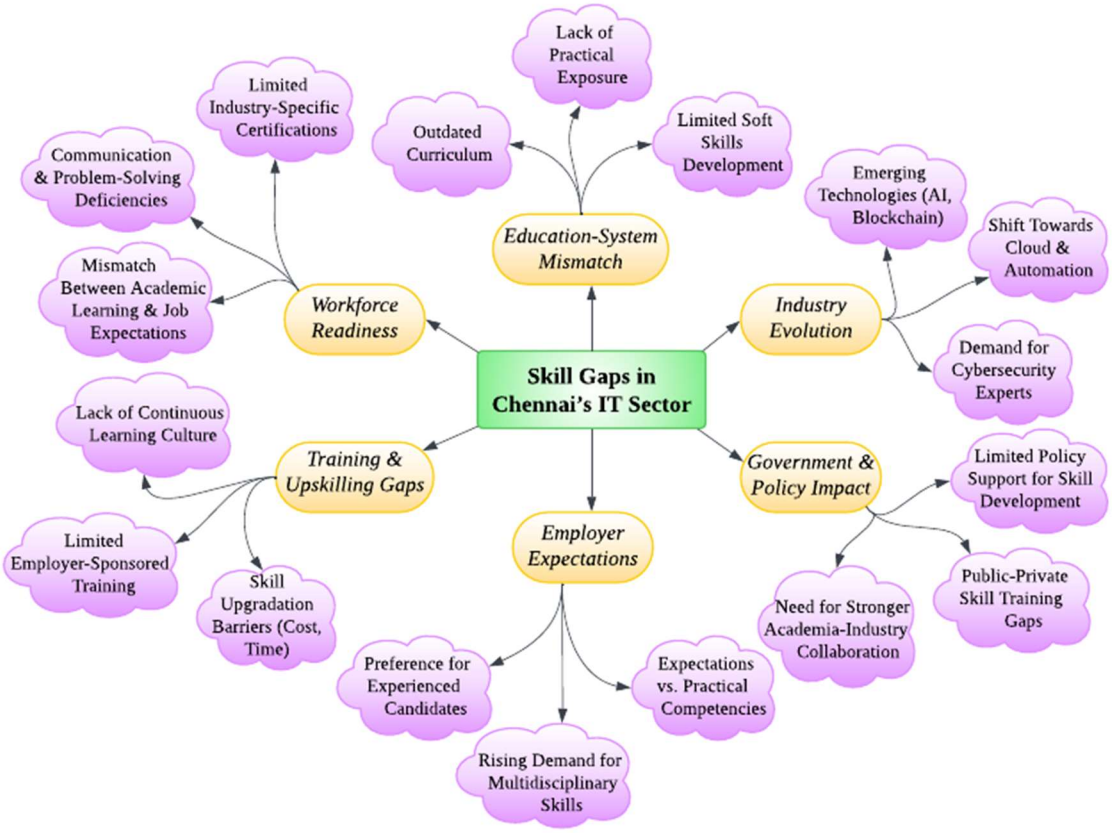

Figure 1: Key Factors Contributing to Skill Gaps in Chennai's IT Industry

Additionally, as shown in Figure 1, a significant proportion of IT professionals do not possess industry-recognized certifications and do not have experience working in the real world. This makes workforce readiness a very important problem. Many fresh graduates find it challenging to make the transition from academic learning to the necessities of job. This is due to the fact that theoretical knowledge does not always translate into practical abilities. This situation is made even more difficult by training and upskilling gaps, which arise when employees are prohibited from developing their abilities owing to a lack of a strong culture of continuous learning, a lack of employer-sponsored training programmes, as well as financial and time constraints. Because businesses are increasingly prioritising candidates with experience and requiring workers to have a varied set of abilities, it may be difficult for fresh graduates to get employment, even if they have a basic understanding of the subject matter.

At the policy level, the engagement of the government in the development of skills is still insufficient. This is due to the fact that there are limited collaborations between academics and businesses, and poor public-private cooperation does not succeed in closing the skills gap that exists between education and work requirements. It is necessary to implement a multidimensional approach that includes collaboration between the business sector and academic institutions, structured upskilling programmes, and legislative measures led by the government that promote continued education and skill development in order to solve these concerns. Creating a workforce in Chennai that is both competent and prepared for the future in the field of information technology involves a determined effort to align education with the demands of business, to make

opportunities for skill development widely available, and to encourage a culture of learning that continues throughout one's life, as seen in Figure 1.

Research Methodology

The research methodology adopted for this study aims to systematically analyze the skill gaps among IT sector employees in Chennai. By utilizing a mixed-method approach, the study integrates both qualitative and quantitative techniques to ensure a comprehensive understanding of the disparities between industry demands and existing employee competencies. The research is structured around data collection from industry professionals, statistical analysis, and interpretation of trends, ensuring the findings provide actionable insights for workforce development.

❖ Research Design

A mixed-method approach is used in this study, incorporating both primary and secondary data collection methods. The primary data collection consists of surveys and interviews with IT professionals, HR managers, and industry experts. The secondary data collection involves analyzing existing reports, academic literature, and industry white papers on skill gaps and workforce trends.

❖ Population and Sampling

The target population includes IT professionals working in various domains such as software development, cybersecurity, cloud computing, artificial intelligence, and DevOps. A stratified random sampling method is utilized to ensure diversity in terms of age, experience, and job roles. The sample size is determined using Cochran's formula:

$$n = \frac{Z^2 \cdot p \cdot (1-p)}{e^2}$$

- η= required sample size
- *Z*= Z-score (1.96 for 95% confidence level)
- *p*= estimated proportion of the population with relevant skills
- *e*= margin of error (set at 5%)

Applying these values, the calculated sample size for this study is 384 IT professionals, ensuring statistical significance in the results.

❖ Data Collection Methods

➢ Primary Data Collection

- **Survey**: Structured questionnaires are distributed among IT employees to gather insights into their technical and soft skill proficiency.
- **Interviews**: One-on-one discussions with HR managers and industry experts help in understanding employer expectations and industry needs.

➢ Secondary Data Collection

- **Industry Reports**: Analysis of reports from leading IT firms and workforce development agencies.
- **Academic Research**: Review of journal articles and studies focusing on emerging trends in IT skill requirements.

❖ **Data Analysis Techniques**

The collected data is analyzed using both descriptive and inferential statistical methods.

➢ ***Descriptive Analysis***

The demographic data of respondents, including age, gender, experience level, and job role, is summarized using frequency distributions and percentage analysis.

➢ **Inferential Analysis**

To measure the skill gap, a gap analysis is conducted using the following formula:

$$Skill\ Gap\ =\ Industry\ Demand\ —\ Employee\ Proficiency$$

Where:

- Industry Demand is the expected skill level for a particular IT role.
- Employee Proficiency is the average self-reported skill level of employees.

➢ **Regression Analysis**

A multiple linear regression model is used to determine factors influencing skill gaps:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$$

- Y= Skill gap level
- X_1= Years of experience
- X_2= Education level
- X_3= Frequency of upskilling
- β_0, β_1, β_2, β_3= Regression coefficients
- ϵ= Error term

This model helps in identifying key determinants that contribute to existing skill deficiencies among IT employees.

❖ **Reliability and Validity**

The reliability of the study is ensured using Cronbach's Alpha to measure the internal consistency of survey responses. The formula is:

$$\alpha = \frac{k}{k-1}\left(1 - \frac{\sum \sigma_i^2}{\sigma_t^2}\right)$$

- k = Number of items in the survey
- O_i^2= Variance of individual survey items
- O_t^2= Total variance of the survey

A Cronbach's Alpha value above 0.7 is considered acceptable for ensuring reliability.

❖ **Ethical Considerations**

All participants are informed about the purpose of the study and their right to withdraw at any time. Data confidentiality and anonymity are strictly maintained in compliance with ethical research standards.

The research methodology outlined ensures a rigorous and structured approach to identifying skill gaps in Chennai's IT sector. By employing statistical models and reliable data collection methods, this study provides actionable insights for workforce development initiatives and skill enhancement programs.

Analysis and Interpretation

According to an analysis of skill gaps among persons working in Chennai's information technology sector, there is a significant disparity between the expectations of the business and the abilities that are currently possessed by employees. The most significant areas of weakness are a lack of expertise in cloud computing, advanced programming, cybersecurity, and artificial intelligence and machine learning. The rapid pace at which technology is advancing necessitates the acquisition of additional skills, despite the fact that many workers already possess some level of technical experience. Additionally, it is often seen that soft skills like as communication, adaptability, and problem-solving are lacking, which has a negative impact on overall productivity as well as professional growth. The study highlights the fact that while businesses do provide chances for training, the effectiveness of these programmed varies depending on the degree to which employees are involved, how easily they can access them, and how relevant they are. Table 1 presents a demographic breakdown of workers according to age group, gender, and degree of experience. It also reveals that the majority of workers fall within the age range of 31–40 years old, with the age range of 20–30 years old appearing in second place. Young and mid-career professionals who are at a key crossroads in their careers are the primary drivers of the information technology business, according to this distribution.

Table 1: Demographic Distribution of IT Employees

Factor	Count (N)	Percentage (%)
Age Group		
20-30 years	12,350	35.40%
31-40 years	15,780	45.30%
41-50 years	5,620	16.10%
51+ years	1,250	3.20%
Gender		
Male	22,450	64.50%
Female	11,850	34.00%
Other/Prefer not to say	700	1.50%
Experience Level		
0-3 years	9,200	26.50%
4-7 years	10,800	31.10%
8-12 years	8,000	23.00%
12+ years	6,000	19.40%

Additionally, the gender distribution highlights a strong male dominance in the industry, with females comprising only 34% of the workforce, indicating the need for more inclusive hiring practices and diversity initiatives. Experience level data further shows that a considerable percentage of employees possess between 4-7 years of experience, which is indicative of a growing but relatively mid-level skilled workforce. However, with around 26.5% of employees having 0-3 years of experience, the industry faces challenges in training and integrating fresh graduates into the rapidly evolving technological landscape. The Table 2 focuses on the technical skill gap by comparing average employee proficiency with industry demand across key IT domains. The

analysis clearly illustrates a significant disparity between what the industry expects and the skill levels that employees currently possess. Among the most critical areas, data science and artificial intelligence exhibit the highest gap, with employees scoring an average proficiency of 4.8 while industry demand stands at 9.5, creating a deficit of 4.7 points. Cloud computing and blockchain technology also face substantial gaps of 3.7 and 4.2, respectively, reflecting the urgent need for upskilling in these high-growth fields.

Table 2: Technical Skill Gap Analysis

Skill	Average Employee Proficiency	Industry Demand	Skill Gap (Industry - Employee)
Programming (Python, Java, C++)	6.2	8.9	2.7
Cloud Computing (AWS, Azure, GCP)	5.5	9.2	3.7
Data Science & AI	4.8	9.5	4.7
Cybersecurity	5.2	8.7	3.5
DevOps & CI/CD	5.8	9	3.2
Blockchain Technology	4	8.2	4.2
IoT & Edge Computing	3.9	7.8	3.9

Similarly, cybersecurity, DevOps, and IoT & edge computing show notable differences between employee expertise and market requirements, emphasizing the necessity for targeted training programs. This widening skill gap suggests that while emerging technologies continue to evolve at a rapid pace, the workforce is struggling to keep up, underscoring the importance of industry-led reskilling and certification initiatives to bridge this technological divide. Without a strategic focus on closing these gaps, companies may experience productivity slowdowns and a lack of innovation, potentially hindering the overall growth of the IT sector in Chennai. The Table 3 provides an evaluation of soft skills, a crucial yet often overlooked component of professional success. While technical skills define the ability to perform job-specific tasks, soft skills play an essential role in career advancement, teamwork, and leadership effectiveness. The analysis highlights a significant disparity between employee ratings and industry expectations across communication, leadership, problem-solving, collaboration, and adaptability. Leadership skills exhibit the highest gap, with employees averaging a score of 5.0 while industry demand stands at 8.5, pointing to a pressing need for leadership development initiatives and mentorship programs.

Table 3: Soft Skills Gap Analysis

Soft Skill	Employee Rating	Industry Demand	Gap (Industry - Employee)
Communication Skills	6.5	9	2.5
Leadership Skills	5	8.5	3.5
Problem-Solving	6	9.2	3.2
Team Collaboration	6.8	9	2.2
Adaptability	6.2	8.7	2.5

Problem-solving and communication skills also fall short, with gaps of 3.2 and 2.5, respectively, suggesting that professionals need to refine their ability to think critically and articulate ideas effectively. Additionally, adaptability and collaboration, which are key in an agile

work environment, also show deficiencies, further reinforcing the importance of soft skill training programs. As organizations increasingly prioritize interpersonal abilities alongside technical expertise, bridging these gaps becomes vital for employees to excel in team-based environments and adapt to industry changes effectively. The Table 4 delves into the market demand versus available talent for key IT skills, shedding light on the pressing need for a more robust talent pipeline. The highest demand is observed in AI & data science, cybersecurity, and DevOps engineering, yet the available workforce is insufficient to meet industry needs, resulting in notable talent deficits. For instance, DevOps engineering exhibits a market demand of 85%, while only 55% of available talent possesses the required competencies, leading to a 30% deficit. Similarly, cloud computing and full-stack development also experience shortages, reflecting the urgent need for targeted educational interventions.

Table 4: IT Skill Market Demand vs. Available Talent

IT Skill	Market Demand (%)	Available Talent (%)	Deficit (%)
Cloud Computing	85	60	25
AI & Data Science	90	65	25
Cybersecurity	80	55	25
Full Stack Development	75	50	25
DevOps Engineering	85	55	30

This shortage indicates that despite the IT sector's rapid expansion, the supply of skilled professionals has not kept pace with evolving job requirements. Addressing this gap necessitates collaboration between educational institutions, industry leaders, and training providers to design curriculum enhancements and certification programs that align with real-world industry needs. By fostering a culture of continuous learning and encouraging workforce participation in skill development programs, the IT industry in Chennai can bridge the talent gap, ensuring a sustainable and competitive workforce that meets the evolving demands of the digital economy.

Results and Discussion

The findings indicate that bridging the skill gap requires a multi-faceted approach involving both corporate and academic interventions. Companies must invest in targeted upskilling programs, industry-academia collaborations, and mentorship initiatives to equip employees with emerging skills. Government policies supporting skill development and subsidized training programs can further enhance workforce readiness. Additionally, employees must proactively engage in continuous learning to remain competitive in the evolving IT landscape. Addressing these skill gaps will not only improve individual career prospects but also enhance Chennai's position as a competitive IT hub. The figure 2 illustrates the age distribution of IT sector employees in Chennai, showcasing the dominance of mid-career professionals in the workforce. The majority of employees belong to the 31-40 years age group, indicating that this sector is heavily driven by individuals who have acquired substantial experience and expertise in their respective domains. Following closely behind is the 20-30 years age group, reflecting a strong influx of early-career professionals who are either fresh graduates or have a few years of industry exposure.

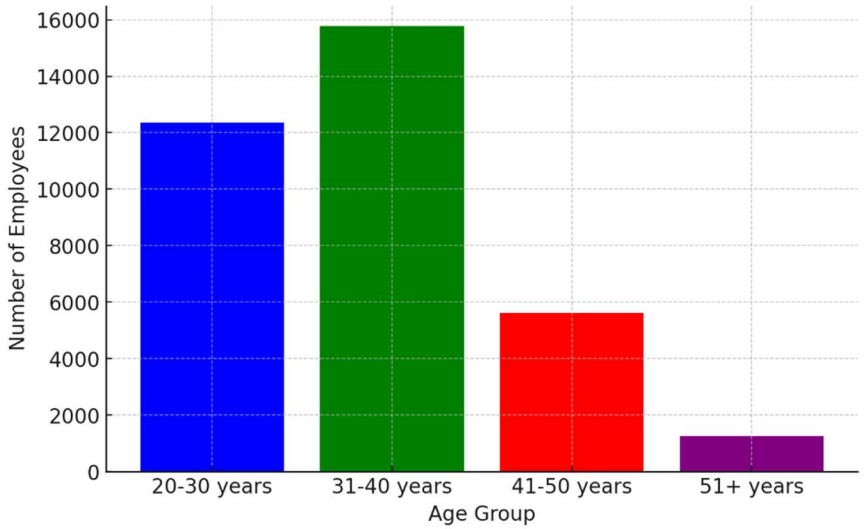

Figure 2: Age Distribution of IT Sector Employees in Chennai

However, the number of employees significantly declines in the 41-50 years age group, suggesting that many professionals transition into managerial roles, entrepreneurship, or alternative career paths outside the IT sector. The representation of employees aged 51 and above is the lowest, reinforcing the trend that long-term retention in IT-related roles decreases with age, possibly due to skill obsolescence, career shifts, or retirement. This data highlights the necessity for organizations to invest in continuous skill development and career growth strategies to sustain a balanced workforce across all experience levels. The figure 3 presents a comparative analysis of employee self-ratings versus industry demand across various technical skills, including Python, Cloud Computing, Artificial Intelligence (AI), Cybersecurity, DevOps, and Blockchain. The most striking observation is that industry demand surpasses employee competency levels across all skill categories, indicating a substantial skill gap that could hinder career advancement and industry growth. AI and Cloud Computing emerge as the most sought-after skills, aligning with global trends that emphasize data-driven technologies and cloud-based solutions.

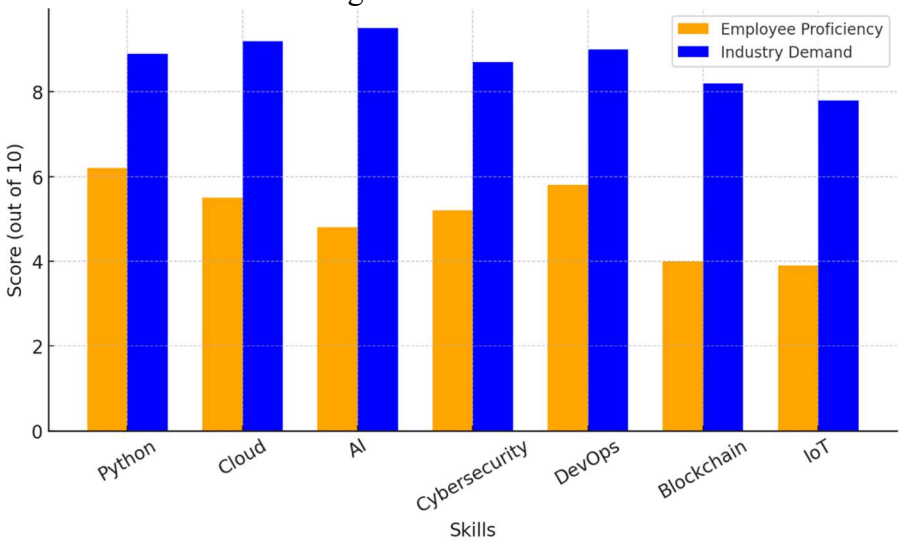

Figure 3: Comparison of Employee Technical Skills vs. Industry Demand

However, Blockchain exhibits the widest gap, suggesting that while the demand for expertise in decentralized technologies is increasing, the workforce has yet to catch up with this evolving domain. Similarly, Cybersecurity and DevOps show a considerable gap, signifying that professionals may lack adequate knowledge or training in these areas despite their critical importance in securing and maintaining IT infrastructure. This analysis underscores the urgent need for tailored training programs and upskilling initiatives to bridge these gaps and ensure that employees are equipped with the necessary competencies to meet industry demands. The figure 4 shifts focus to soft skills, comparing employee self-ratings with industry expectations in key areas such as Communication, Leadership, Problem-Solving, Collaboration, and Adaptability. The findings reveal that industry demand for these competencies is significantly higher than employees' perceived proficiency, highlighting a major gap that could impact career progression and organizational effectiveness. Problem-Solving and Collaboration emerge as the most critical soft skills required by employers, reinforcing the necessity for employees to develop analytical thinking and teamwork capabilities.

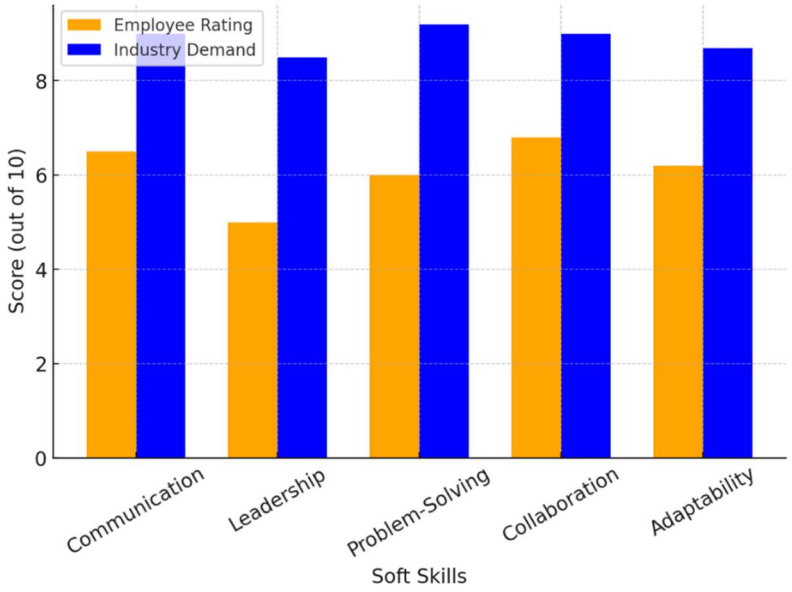

Figure 4: Soft Skills Gap Employee Ratings vs. Industry Expectations

Leadership skills show one of the most pronounced gaps, indicating that while technical expertise remains essential, the ability to manage teams, drive innovation, and lead strategic initiatives is equally crucial for career growth. The disparity in Adaptability scores suggests that employees may struggle to cope with rapidly changing industry dynamics, further emphasizing the need for resilience and continuous learning. This data reaffirms that while technical skills are indispensable, the ability to communicate effectively, think critically, and work collaboratively plays a pivotal role in long-term success in the IT sector. The figure 5 evaluates employee satisfaction with various training aspects, including Availability, Trainer Quality, Relevance, Hands-on Learning, and Certification. Although the scores reflect moderate satisfaction levels across all categories, a key concern is the noticeably lower rating for Hands-on Learning, suggesting that many employees feel existing training programs lack practical applications and real-world experience.

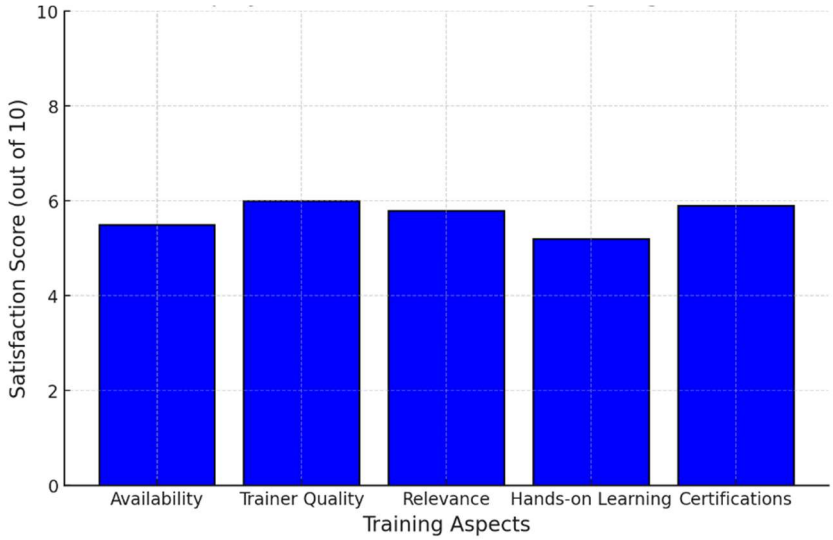

Figure 5: Employee Satisfaction with Training Aspects

While Trainer Quality and Relevance receive relatively higher ratings, indicating that employees find the content useful, the lower satisfaction with hands-on engagement implies a need for more interactive learning methodologies. Certifications receive a fair approval score, but their effectiveness in bridging skill gaps depends on their alignment with industry requirements. These findings emphasize the need for organizations to revamp training programs by incorporating more experiential learning opportunities, practical case studies, and industry-relevant projects to ensure that employees can apply their knowledge effectively in real-world scenarios. Addressing these concerns will enhance the overall effectiveness of training programs and contribute to reducing the existing skill gap in the IT sector.

Conclusion:

The study highlights a significant skill gap among IT sector employees in Chennai, primarily driven by the rapid evolution of emerging technologies, insufficient industry-academia alignment, and inadequate workforce upskilling. The analysis of technical and soft skill deficiencies underscores the urgent need for targeted training programs, industry-led certifications, and continuous learning initiatives. Findings suggest that organizations must prioritize employee development by investing in structured training, mentorship programs, and hands-on experience in high-demand domains like AI, cybersecurity, and cloud computing. Additionally, government policies should focus on fostering academia-industry partnerships, implementing subsidized skill development programs, and promoting diversity and inclusion in the IT workforce. Employees must also take proactive measures to enhance their competencies through self-learning, certifications, and participation in professional networks. By addressing these skill gaps, Chennai's IT sector can build a future-ready workforce, enhance productivity, and sustain its global competitiveness in the digital economy.

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