



Identifying And Analyzing Factors Influencing The Turnover Rate In Selected IT Companies

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ABSTRACT

This study explores the factors determining the employee turnover in the Information Technology (IT) industry, with a focus on major companies like Tata Consultancy Services Limited, Tech Mahindra, Wipro Tech Limited, Infosys, C-DOT, ITI, Rail TEL, and MTNL. The diverse 452 sample respondents, representing various demographics and organizational roles, provide valuable insights into turnover dynamics through questionnaire survey. Key findings reveal the paramount influence of Individual job satisfaction, emphasizing the need to prioritize employee well-being, career growth opportunities, and competitive compensation. Organizational Factors, including performance evaluation and leadership style, also play crucial roles. Hypothesis testing suggests a uniformity in turn over factors across the studied companies. The study highlights the importance of addressing personal, external, job-related, organizational, and social and environmental responsibility factors for effective retention strategies.

Keywords: Employee Turnover; Information Technology Industry; Retention Strategies; Organizational Factors; Job-related Influences.

I. INTRODUCTION

Employee turnover is a persistent challenge faced by organizations across industries, and the Information Technology (IT) sector, being dynamic and competitive, is particularly susceptible to its impact [18]. In this paper, we aim to delve into the intricate landscape of turnover within the IT industry, focusing on renowned companies such as Tata Consultancy Services Limited, Tech Mahindra, Wipro Tech Limited, Infosys, C-DOT, ITI, Rail TEL, and MTNL. The IT industry stands at the forefront of global economic transformation, acting as a key driver in shaping the digital landscape [8], [19], [21]. Characterized by rapid technological advancements, dynamic market conditions, and intense competition, this sector poses unique challenges and opportunities for both employees and employers [13]. In the IT domain, the retention of skilled professionals is of paramount importance due to the industry's reliance on innovation and specialized expertise [15]. High turnover rates within IT companies can not only disrupt project continuity but also result in knowledge loss and increased recruitment costs, impacting overall organizational performance [12].

Understanding the factor's driving turnover is crucial for devising effective retention strategies within the IT sector [7]. Insights gained from this research can aid IT companies in creating work environments that not only attract top talent but also foster employee satisfaction, professional growth, and organizational loyalty [20].

II. LITERATUREREVIEWANDRESEARCH GAPS

The body of literature addressing employee turnover within the Information Technology (IT) sector is rich and diverse, providing a comprehensive foundation for understanding the complex dynamics that influence professionals' decisions to stay or leave organizations. Notably, [11] have conducted seminal work in highlighting the pivotal role of human resource management practices in mitigating turnover. Their research underscores the importance of strategic HR initiatives, including effective recruitment, comprehensive training programs, and performance management strategies. By establishing a link between these practices and reduced turnover [16], contribute valuable insights applicable across various industries, including the dynamic

landscape of the IT sector.

Building on the importance of human resource practices [5], delve into the intricate domain of job satisfaction. Their comprehensive exploration of job satisfaction reveals its multifaceted nature, encompassing aspects such as positive work relationships, engaging job content, and robust organizational support. As a key determinant of turnover intentions, job satisfaction emerges as a critical factor influencing employee retention. This insight aligns with the broader understanding that satisfied employees are more likely to remain committed to their organizations, an assertion supported by numerous studies in the field [1], [10], [17].

In the specific context of the IT industry [2], contribute valuable insights by exploring the influence of organizational culture on turnover rates. Their research underscores the significance of fostering a positive and inclusive culture within technology-driven organizations. This aligns with the work [14], who argues that a strong organizational culture positively impacts employee retention. Furthermore, work [6] focuses on the intricate interaction between technological advancements and turnover. By shedding light on how employees' perceptions of the relevance of their skills to evolving job requirements influence their decisions to seek alternative employment, offers crucial insights into the unique challenges posed by the rapid evolution of technology within the IT sector.

The literature collectively emphasizes the interconnectedness of human resource practices, job satisfaction, organizational culture, and technological advancements in shaping the turnover landscape within the broader IT sector (Jagun, 2015). Research [3] further supports this interconnected view, highlighting that a holistic approach, considering various factors simultaneously, is crucial in understanding and addressing turnover dynamics within complex organizational settings.

This research paper critically examines the factors influencing employee turnover within the Information Technology (IT) sector, with a specific focus on prominent companies such as Tata Consultancy Services Limited, Tech Mahindra, Wipro Tech Limited, Infosys, C-DOT, ITI, Rail TEL, and MTNL.

III. RESEARCH METHODOLOGY

Development of Questionnaire

The questionnaire for this study is precisely structured to capture essential demographic information and delve into factors influencing turnover. The questionnaire included demographic variables, personal, organizational, job-related, social and environmental responsibility and external factors.

Sampling and Data Collection

Target Population of the Study

The targeted population for this research encompasses employees from leading IT companies, specifically Tata Consultancy Services Limited, Tech Mahindra, Wipro Tech Limited, Infosys, C-DOT, ITI, Rail TEL, and MTNL.

Sampling Technique

To gather responses across various demographics and companies, a stratified random sampling method is employed. This technique ensures that the sample reflects the heterogeneity of the population, allowing for a more robust and nuanced analysis of turnover factors.

Sample Size Calculation

Cochran's formula for the sample size [3] calculation for the required sample size (no), as represented by Equation (1):

(1)

This formula (Equation 1) takes into account a 95% confidence level, corresponding to a standard normal deviation (z) of 1.96, a 5% margin of error (e = 0.05), and a degree of population variability (p) set at 0.5 to account for maximum variability. The complementary probability, q, was calculated as 0.5 (1 - p). By substituting these values into Cochran's formula, this study determined the minimum required sample size to be 384. To streamline the data collection process, an online Google Form is employed as the primary tool.

Analysis of Collected Data

The following techniques in SPSS 26 software were employed to analyse the collected data;

Reliability Analysis using Cronbach's Alpha

The collected data undergoes a reliability analysis using Cronbach's alpha, assessing the internal consistency of the questionnaire. A high Cronbach's alpha value ($\alpha > 0.7$) indicates the reliability of the survey items within each category, ensuring that they consistently measure the same underlying construct (Cochran, 1997).

Descriptive Analysis of Study Variables

To characterize the study variables, a descriptive analysis is performed, calculating the mean and standard deviation for each variable in the personal, organizational, job-related, and external factors categories.

Relative Influence Index for Ranking of Factors

For prioritizing and ranking of factors influencing employee turnover, a relative influence index (RII) is computed using Equation (2).

(2)

Where, $\sum W$ = sum of responses, that is, sum of rating of a factor given by respondents, A = maximum value of rating which is 5 and N = total number of respondents. This index involves assigning weights to each factor based on their perceived influence, as reported by survey respondents. This ranking aids in identifying the most influential factors for organizations to address in enhancing employee retention strategies effectively. The possible ranges of RII and corresponding influence level is presented in Table 1.

TABLE I: RII Ranges and Influence Level

Range	Influence level
0	No influence
0-0.20	Very low
0.20-0.40	Low
0.40-0.60	Medium
0.60-0.80	High
0.80-1	Very high

Hypothesis Testing

The hypothesis statements for this study propose a comprehensive examination of factors influencing employee turnover across selected Information Technology (IT) companies. The null hypothesis (H_0) posits that there is no significant difference in personal factors, organizational factors, job-related factors, social and environmental responsibility factors, and external factors affecting turnover among Tata Consultancy Services Limited, Tech Mahindra, Wipro Tech Limited, Infosys, C-DOT, ITI, Rail TEL, and MTNL.

IV. RESULTS AND DISCUSSION

4. Results and Discussion

In the questionnaire survey, a total 452 responses were collected. The analysis collected responses is discussed in subsequent sub-sections;

General Information of Respondents

Table 2 provides a detailed overview of the demographic composition of the study participants, offering valuable insights into the characteristics of the respondents. Respondents are associated with prominent IT companies, including Tata Consultancy Services Limited, Tech Mahindra, Wipro Tech Limited, Infosys, C-DOT, ITI, Rail TEL, and MTNL. Finally, the respondents shed light on the turnover rates within their respective companies, categorizing them as Very Low, Low, Medium, High, or Very High, offering a comprehensive understanding of the demographic landscape and setting the stage for in-depth turnover analysis.

TABLE II: General Information of Respondents

Demographic	Category	Frequency	Percentage
1. Gender	Male	227	50.2
	Female	225	49.8
2. Age group	Under 25 years	87	19.2
	25-34 years	87	19.2
	35-44 years	100	22.1
	45-54 years	105	23.2
	55 years and above	73	16.2
3. Education	Bachelor's Degree	149	33.0
	Master's Degree	146	32.3
	Doctorate or Professional Degree	157	34.7
4. Name of Company	Tata Consultancy Services Limited	49	10.8
	Tech Mahindra	53	11.7
	Wipro Tech Limited	53	11.7
	Infosys	53	11.7
	C-DOT	64	14.2
	ITI	64	14.2
	Rail TEL	48	10.6
	MTNL	68	15.0
5. Turnover rate in your company	Very Low	87	19.2
	Low	81	17.9
	Medium	96	21.2
	High	95	21.0
	Very High	93	20.6

The descriptive statistics presented in Table 4 offer crucial insights into the perceived influences of key factors on employee turnover within the selected IT companies. Notably, Personal Factors received a relatively high mean of 3.9480, indicating that employees, on average, consider personal aspects such as career goals, growth opportunities, and job satisfaction to have a substantial impact on turnover. The associated standard deviation of 0.85161 reflects the degree of variability in responses, showcasing the range and dispersion of opinions among respondents regarding Personal Factors. Similarly, Job-related Factors and External Factors also received high mean scores of 3.8973 and 3.9412, respectively, with standard deviations of 0.89596 and 0.83537. These standard deviations offer insights into the variability of responses for Job-related Factors and External Factors, providing a nuanced understanding of the consensus or divergence among respondents. Organizational Factors and Social and Environmental Responsibility Factors, though slightly lower in mean scores (3.8648 and 3.8400, respectively), still reflect positive evaluations, with standard deviations of 0.74972 and 0.97553.

TABLEIV Descriptive Statistics of Study Materials

Variables	Mean	Standard Deviation
Personal Factors	3.9480	.85161
Organizational Factors	3.8648	.74972
Job-related Factors	3.8973	.89596
Social and Environmental Responsibility Factors	3.8400	.97553
External Factors	3.9412	.83537

Reliability Analysis of Data

Table 3 displays the outcomes of the reliability analysis conducted on the study's data, evaluating the internal consistency of measurement scales across different categories. All values of Cronbach's alpha were found as more than 0.7. These reliability scores affirm the robustness and stability of the measurement scales within each category, ensuring the trustworthiness of the collected data for subsequent analyses and offering valuable insights into the factors influencing employee turnover in the selected IT companies.

TABLEIII Reliability Analysis of Data

Sr. No	Category	Cronbach's Alpha	Number of Items	Remarks
1.	Personal Factors	0.902	6	Excellent
2.	Organizational Factors	0.877	8	Good
3.	Job-related Factors	0.883	5	Good
4.	Social and Environmental Responsibility Factors	0.852	3	Good
5.	External Factors	0.932	7	Excellent

Descriptive Analysis of Study Variables

4.3 Overall Ranking of Factors

Table 5 provides an overall ranking of factors influencing employee turnover based on their Relative Importance Index (RII) scores, offering a comprehensive perspective on the significance of each factor within the selected IT companies. Individual job satisfaction claims the top rank with an RII of 0.824, emphasizing its paramount importance in influencing turnover dynamics. Career growth opportunities secure the second position with an RII of 0.820, highlighting the substantial impact of professional advancement on employee retention. Adequacy of compensation packages holds the third rank with an RII of 0.816, signifying its significant role in shaping turnover-related decisions. Environmental sustainability practices, Personal career goals, and Performance evaluation and feedback processes share the fourth position with an RII of 0.812, underscoring their collective influence on turnover dynamics. Industry trends and competition, Technological advancements impacting job roles, and Job security and stability share the fifth position with an RII of 0.808, emphasizing the broad range of factors contributing to turnover considerations. This ranking provides organizations with valuable insights into the diverse factors that collectively shape employee turnover, guiding the development of targeted strategies for enhancing retention efforts in the dynamic IT industry.

TABLEV Overall Ranking of Factors Influencing Employee Turnover

Factors Influencing Employee Turnover	RII	Rank
Individual job satisfaction	0.824	1
Career growth opportunities	0.820	2
Adequacy of compensation packages	0.816	3
Environmental sustainability practices	0.812	4
Personal career goals	0.808	5
Performance evaluation and feedback processes	0.808	5
Industry trends and competition	0.808	5
Technological advancements impacting job roles	0.804	6

Job security and stability	0.804	6
Impact of globalization on job roles	0.800	7
Economic conditions and job market	0.800	7
Leadership and management style	0.797	8
Flexibility in work arrangements	0.796	9
Recognition and rewards programs	0.794	10
Employee development and training opportunities	0.791	11
Transparency indecision-making processes	0.789	12
Challenges associated with virtual teams	0.788	13
Alignment of employee skills with job requirements	0.788	13
Work-life balance	0.780	14
Effectiveness of communication within the organization	0.777	15
Legal and regulatory factors affecting the IT industry	0.768	16
Employee perception of the company's commitment to social and environmental causes	0.760	17
Opportunities for skill development	0.760	17
Nature of work and job responsibilities	0.750	18
Geographical location of the company	0.748	19
Corporate social responsibility initiatives	0.732	20
Company culture and work environment	0.724	21
Employee involvement in decision-making	0.703	22
Health insurance benefits	0.689	23

Consultancy Services Limited, Tech Mahindra, Wipro Tech Limited, Infosys, C-DOT, ITI, Rail TEL, and MTNL. **Alternative Hypothesis (H1):** There is a significant difference in personal factors, organizational factors, job-related factors, social and environmental responsibility factors, and external factors influencing employee turnover a cross Tata Consultancy Services Limited, Tech Mahindra, Wipro Tech Limited, Infosys, C-DOT, ITI, Rail TEL, and MTNL.

The one-way ANOVA results, as presented in Table 6, indicate that for Personal Factors (PF), Organizational Factors (OF), Job-related Factors (JRF), Social and Environmental Responsibility Factors (SER), and External Factors (ERF), the p-values are 0.260, 0.069, 0.165, 0.496, and 0.537, respectively. With all p-values exceeding the commonly used significance level of 0.05, the null hypothesis is not rejected for each factor. Therefore, the data does not provide sufficient evidence to claim a significant difference in turnover factors across the specified IT companies. These findings suggest a degree of uniformity in the factors influencing employee turnover within the studied companies.

TABLE V One- Way ANOVA Testing

Variable		P-Value
PF	Between Groups	.260
	Within Groups	
	Total	
OF	Between Groups	.069
	Within Groups	
	Total	
JRF	Between Groups	.165
	Within Groups	
	Total	
SER	Between Groups	.496
	Within Groups	
	Total	
ERF	Between Groups	.537
	Within Groups	
	Total	

4.6 Hypothesis Testing

The hypothesis testing aimed to assess the significance of differences in factors influencing employee turnover across the selected IT companies, namely Tata Consultancy Services Limited, Tech Mahindra, Wipro Tech Limited, Infosys, C- DOT,ITI, Rail TEL, and MTNL. The hypothesis for this study is formulated as follows;

Null Hypothesis (Ho): There is no significant difference in personal factors, organizational factors, job-related factors, social and environmental responsibility factors, and external factors influencing employee turnover across Tata

V. CONCLUSIONS

In conclusion, this study has systematically explored and analyzed the factors influencing employee turnover in prominent Information Technology (IT) companies, employing a robust methodology and statistical analyses. The careful selection of leading IT firms and a stratified random sampling approach ensured a representative and diverse sample, contributing to the reliability and validity of the findings. The use of an online survey streamlined data collection, allowing for the efficient gathering of responses from a varied demographic and organizational spectrum within the IT sector.

The results revealed key insights into the factors shaping turnover dynamics in the IT industry. Individual job satisfaction emerged as the most influential factor, underscoring the importance of addressing personal considerations in retention strategies. The study's rankings, hypothesis testing, and overall groupings provided a comprehensive understanding of the nuanced interplay between personal, organizational, job-related, social and environmental responsibility, and external factors. The uniformity in turnover factors across studied companies suggests a shared set of challenges in the IT sector, emphasizing the need for industry-wide strategies to foster a positive work environment and enhance employee retention.

In practical terms, the study's outcomes offer actionable recommendations for human resource practitioners and organizational leaders. Prioritizing initiatives that boost job satisfaction, provide growth opportunities, and ensure competitive compensation can significantly contribute to creating a workplace that attracts and retains talent in the dynamic landscape of the IT industry. Overall, this research enriches the discourse on employee turnover in the IT sector, providing evidence-based insights that can inform strategic decision-making and contribute to the long-term success of IT organizations in retaining their valuable workforce.

References

- [1] Babajide, E. O. (2010). The Influence Of Personal Factors On Workers Turnover Intention In Work Organizations In South-West Nigeria. *Journal of Diversity Management (JDM)*, 5(4), 1–10. <https://doi.org/10.19030/jdm.v5i4.338>
- [2] Bangi, Y. I., & Mgeni, P. L. (2022). Factors Influencing Labour Turnover Intentions in Non-Governmental Organization: Insights from Christian Social Service Commission (CSSC) in Dar es Salaam. *European Journal of Humanities and Social Sciences*, 2(1), 80–86. <https://doi.org/10.24018/ejsocial.2022.2.1.193>
- [3] Chang, V., Mou, Y., Xu, Q. A., & Xu, Y. (2023). Job satisfaction and turnover decision of employees in the Internet sector in the US. *Enterprise Information Systems*, 17(8). <https://doi.org/10.1080/17517575.2022.2130013>
- [4] Cochran, William G. (1997). *Cochran_1977_Sampling_Techniques_Third_E.pdf*.
- [5] Ezaili Alias, N., Hazieqah Rohmanan, N., Ismail, S., Koe, W.-L., & Othman, R. (2018). Factors Influencing Turnover Intention in a Malaysian Manufacturing Company. *KnE Social Sciences*, 3(10), 771. <https://doi.org/10.18502/kss.v3i10.3171>
- [6] Farooq, H., Janjua, U. I., Madni, T. M., Waheed, A., Zareei, M., & Alanazi, F. (2022). Identification and Analysis of Factors Influencing Turnover Intention of Pakistan IT Professionals: An Empirical Study. *IEEE Access*, 10, 64234–64256. <https://doi.org/10.1109/ACCESS.2022.3181753>
- [7] Ghani, B., Zada, M., Memon, K. R., Ullah, R., Khattak, A., Han, H., Ariza-Montes, A., & Araya-Castillo, L. (2022). Challenges and Strategies for Employee Retention in the Hospitality Industry: A Review. *Sustainability (Switzerland)*, 14(5), 1–26. <https://doi.org/10.3390/su14052885>
- [8] Halim, Z., Maria, Waqas, M., Edwin, C. A., & Shah, A. (2020). Identifying factors for employee retention using computational techniques: an approach to assist the decision-making process. *SN Applied Sciences*, 2(9), 1–20. <https://doi.org/10.1007/s42452-020-03415-5>
- [9] Jagun, V. (2015). *An Investigation into the High Turnover of Employees within the Irish Hospitality Sector, Identifying What Methods of Retention Should Be Adopted*. September, 1–73. <http://trap.ncirl.ie/2096/1/victoriajagun.pdf%5Cnpapers3://publication/uuid/B91C5679-3607-4C62-9F76-7BE76443AE07>
- [10] Kanchana, L., & Jayathilaka, R. (2023). Factors impacting employee turnover intentions among professionals in Sri Lankan startups. *PLoS ONE*, 18(2 February), 1–20. <https://doi.org/10.1371/journal.pone.0281729>
- [11] Khera, S. N., & Divya. (2019). Predictive Modelling of Employee Turnover in Indian IT Industry Using Machine Learning Techniques. *Vision*, 23(1), 12–21. <https://doi.org/10.1177/0972262918821221>

- [12] Lazzari, M., Alvarez, J. M., & Ruggieri, S. (2022). Predicting and explaining employee turnover intention. *International Journal of DataScience and Analytics*, 14(3), 279–292. <https://doi.org/10.1007/s41060-022-00329-w>
- [13] Mossarah, A. (2023). Investigating factors that impact employee turnover in the medical device industry in the United Arab Emirates. *Social Sciences and Humanities Open*, 7(1), 100492. <https://doi.org/10.1016/j.ssaho.2023.100492>
- [14] Olusegun, S. O. (2013). Influence of job satisfaction on turnover intentions of library personnel in selected universities in South West Nigeria. *Library Philosophy and Practice*, 2013(April).
- [15] Rahman, K. (2017). Analyzing the Factors Influencing Employee Turnover in Private Commercial Banks in Bangladesh. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.2952201>
- [16] Reukauf, J. A. (2018). The correlation between job satisfaction and turnover intention in small business. *Walden Dissertations and Doctoral Studies Walden*, 1–98.
- [17] Roshidi Hassan. (2014). Factors Influencing Turnover Intention Among Technical Employees in Information Technology Organization: a Case of Xyz (M) Sdn . Bhd. *International Journal of Arts and Commerce*, Vol. 3 No.(2008), 120–137.
- [18] Saraf. (2020). AN ANALYSIS ON EMPLOYEE-ATTRITION IN IT INDUSTRY. Vinaya Saraf. *MuktShabd Journal*, IX(Vii), 2751–2758.
- [19] Wang, Q., & Wang, C. (2020). Reducing turnover intention: perceived organizational support for frontline employees. *Frontiers of Business Research in China*, 14(1). <https://doi.org/10.1186/s11782-020-00074-6>
- [20] Xu, H., Zheng, J., Liu, R., Zhang, X., & Zhang, R. (2023). Influencing Factors of Employee Turnover Based on the Random Forest and DEMATEL Method: Evidence from the Qinghai Electric Power Company in China. *Mathematical Problems in Engineering*, 2023. <https://doi.org/10.1155/2023/7798674>
- [21] Yang, J. Te, Wan, C. S., & Fu, Y. J. (2012). Qualitative examination of employee turnover and retention strategies in international tourist hotels in Taiwan. *International Journal of Hospitality Management*, 31(3), 837–848. <https://doi.org/10.1016/j.ijhm.2011.10.001>
- [22] Zhong, Y., Zhang, H., & Wu, X. (2022). Factor Analysis and Mental Health Prevention of Employee Turnover under the Profit-Centered Development of Modern Service Industry. *Occupational Therapy International*, 2022. <https://doi.org/10.1155/2022/3375386>.