

An Impact of Training and Development on Employee Performance and Career Advancement in IT Services and Software Development Industry in India

¹ Ganesh R and ^{*2}Dr. M Kotteeswaran

¹ MBA, Department of Management Studies, School of Management Studies, Vels Institute of Science Technology and Advanced Studies (VISTAS) Pallavaram, Chennai, Tamil Nadu, India.

^{*2}Associate Professor, Department of Management Studies, School of Management Studies, Vels Institute of Science Technology and Advanced Studies (VISTAS) Pallavaram, Chennai, Tamil Nadu, India.

Article Info.

E-ISSN: 2583-6528

Impact Factor (SJIF): 6.876

Peer Reviewed Journal

Available online:

www.alladvancejournal.com

Received: 28/April/2025

Accepted: 05/May/2025

*Corresponding Author

Dr. M Kotteeswaran

Associate Professor, Department of Management Studies, School of Management Studies, Vels Institute of Science Technology and Advanced Studies (VISTAS) Pallavaram, Chennai, Tamil Nadu, India.

Abstract

This study explores the influence of training and development programs on employee performance and career advancement within organizations. In today's dynamic business environment, investing in employee learning has become essential for both individual and organizational success. The research aims to assess how structured training initiatives enhance employees' skills, efficiency, and job performance. Additionally, it investigates the role of continuous professional development in fostering career growth through promotions, salary increments, and increased job satisfaction. The study utilizes a mixed-method approach, combining quantitative data analysis and qualitative insights from employees across various sectors. Findings are expected to highlight the positive correlation between training efforts and improved workforce productivity, motivation, and long-term career progression. Ultimately, the study underscores the strategic importance of learning and development as a tool for talent retention and organizational competitiveness.

Keywords: Training and development, employee performance, career advancement, skill enhancement, job satisfaction, professional growth, organizational performance.

Introduction

In the contemporary organizational landscape, the strategic development of human capital is essential for sustaining competitiveness and achieving long-term objectives. Among the various human resource functions, training and development play a pivotal role in enhancing employee capabilities, aligning individual performance with organizational goals, and fostering a culture of continuous improvement. Well-designed training initiatives are critical for equipping employees with the necessary skills, knowledge, and competencies required to meet evolving business demands. Beyond immediate performance gains, such programs contribute significantly to career advancement by supporting professional growth, increasing opportunities for internal mobility, and improving employee satisfaction and retention. This study seeks to examine the impact of training and development on employee performance and

career progression. It aims to assess how structured learning interventions influence productivity, skill enhancement, and organizational effectiveness, while also exploring the correlation between ongoing professional development and advancements in career trajectories. By providing empirical insights, the research underscores the importance of investing in training as a strategic tool for both individual empowerment and organizational success.

Problem statement

Despite growing recognition of the value of employee training and development, many organizations still face challenges in effectively aligning these programs with measurable improvements in performance and career advancement. Inadequate or poorly structured training initiatives often result in underdeveloped skillsets, reduced productivity, and limited professional growth opportunities for employees.

Objectives

1. To assess the effect of training programs on enhancing employee performance, including productivity, work quality, and efficiency.
2. To examine the relationship between continuous development initiatives and employee career growth, such as promotions, role expansion, and salary progression.
3. To evaluate employee perceptions and satisfaction levels with current training and development opportunities provided by the organization.
4. To identify the challenges and limitations faced by organizations in implementing effective training programs that align with performance goals.
5. To provide recommendations for designing and implementing more impactful training strategies that support both organizational success and individual career advancement.

Research Questions

1. How do training and development programs influence employee performance in terms of productivity, efficiency, and job quality?
2. What challenges do organizations face in implementing effective training and development programs?

Significance of the study

This study holds significant value for both academic and organizational perspectives. In a competitive and rapidly evolving business environment, organizations must continually invest in human capital to sustain growth and maintain a productive workforce. By examining the impact of training and development on employee performance and career progression, the study provides valuable insights into how structured learning programs contribute to enhanced skills, productivity, motivation, and retention.

Literature Review

Rashad Al Karim (2019) this study underscores the direct impact of training and development on employee performance. Using a structured questionnaire, it reveals how quality training programs enhance individual capabilities and job effectiveness. It's practical, data-driven insights make it highly relevant for understanding the core relationship between training and performance.

Rabiyatul Jasiyah (2024) this recent study connects training, job satisfaction, and career advancement in higher education institutions. It highlights how effective training boosts job satisfaction and, in turn, improves employee performance. The emphasis on career advancement adds depth to your research theme, particularly in linking psychological and motivational factors.

Mohammed Nura Adamu, D (2022) this study takes a broad conceptual approach by reviewing literature over two decades to assess how training and development influence productivity. It provides a comprehensive view of how training fills knowledge gaps and enhances adaptability in a dynamic work environment-useful for establishing the theoretical backbone of your study.

Research Methodology

Research Design

Descriptive research method is a type of research that focuses on observing, describing, and documenting characteristics or

behaviours of a subject without influencing or manipulating the study environment. The primary goal is to provide a detailed and accurate picture of a phenomenon, group, or situation.

Sampling

Census sampling is a method in which information is gathered from all members of the population under investigation and not just a sample. It achieves full representation without sampling bias, giving very accurate results.

Data collection

The Primary data was collected through surveys and questionnaires distributed to HR professionals and current employees within the organization.

Data Analysis

Anova, Chi-Square, Correlation, Regression test is measure by using SPSS Software.

Results

Anova

ANOVA ^a						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.556	1	1.556	1.205	.275 ^b
	Residual	127.870	99	1.292		
	Total	129.426	100			

Interpretation

The ANOVA table shows that the regression model is not statistically significant, with an F-value of 1.205 and a p-value of .275 (greater than 0.05). This means the predictor variable does not significantly explain the variation in the dependent variable, and the model does not improve upon simply using the mean.

Chi-Square

Chi-Square Tests			
	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	18.526 ^a	16	.294
Likelihood Ratio	19.966	16	.222
Linear-by-Linear Association	.065	1	.799
N of Valid Cases	101		

a. 18 cells (72.0%) have expected count less than 5. The minimum expected count is .15.

Interpretation

This Chi-Square test table summarizes the results of an analysis examining the association between two categorical variables. The Pearson Chi-Square statistic is 18.526 with 16 degrees of freedom and an associated p-value of .294. Since the p-value is greater than the conventional significance level of 0.05, there is no statistically significant association between the variables. The Likelihood Ratio test, which is an alternative to the Pearson Chi-Square, also supports this conclusion with a value of 19.966 (df = 16, p = .222). Additionally, the Linear-by-Linear Association test, which assesses a trend between ordinal variables, yields a very low value of .065 with a p-value of .799, further confirming the lack of significant association. In total, 101 valid cases were analyzed.

Correlation

Correlation				
		@4 How many years soft work experience do you have	@9 How effective do you find the training programs provide byy	@10 How satisfied are you with the availability of training programs
@4 How many years soft work experience do you have	Pearson Correlation	1	.036	.296**
	Sig. (2-tailed)		.723	.003
	N	101	101	101
@9 How effective do you find the training programs provide byy	Pearson Correlation	.036	1	-.194
	Sig. (2-tailed)	.723		.051
	N	101	101	101
@10 How satisfied are you with the availability of training programs	Pearson Correlation	.296**	-.194	1
	Sig. (2-tailed)	.003	.051	
	N	101	101	101
@11 How satisfied are you with the sufficiency of the training program	Pearson Correlation	.167	.063	.120
	Sig. (2-tailed)	.095	.534	.231
	N	101	101	101
@12 Are the training sessions effective and engaging	Pearson Correlation	.228*	.020	.283**
	Sig. (2-tailed)	.002	.846	.004
	N	101	101	101

Regression

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.110 ^a	.012	.002	1.136

a. Predictors: (Constant), @9 How effective do you find the training programs provided byy

Interpretation

This correlation matrix shows the relationships between years of work experience and various perceptions of training programs. A significant positive correlation ($r = .296$, $p = .003$) exists between years of experience and satisfaction with the availability of training programs, suggesting that more experienced employees tend to be more satisfied in this area. There is also a smaller but significant positive correlation ($r = .228$, $p = .002$) between experience and perception of training sessions as effective and engaging. Other relationships, such as between experience and training effectiveness ($r = .036$, $p = .723$) or sufficiency of training ($r = .167$, $p = .095$), are not statistically significant. Overall, the results indicate that employees with more years of experience are slightly more satisfied with certain aspects of training, particularly availability and engagement.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.110 ^a	.012	.002	1.136

a. Predictors: (Constant), @9 How effective do you find the training programs provided byy

ANOVA ^a						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.556	1	1.556	1.205	.275 ^b
	Residual	127.870	99	1.292		
	Total	129.426	100			

a. Dependent Variable: @20 Do you believe training contribute STO career growth and pro
b. Predictors: (Constant), @9 How effective do you find the training programs provided byy

Interpretations

The regression analysis aimed to determine whether employees' perceptions of the effectiveness of training programs predict their belief that training contributes to career growth. The results show a very weak positive relationship ($R = .110$), with only 1.2% of the variation in career growth belief explained by training effectiveness ($R^2 = .012$).

The model is not statistically significant, as indicated by the F-statistic of 1.205 and a p-value of .275, which is well above the common threshold of 0.05. This suggests that the perceived effectiveness of training programs does not meaningfully influence employees' views on whether training supports their career development.

Findings and Suggestions

- Increased Productivity:** 85% of employees saw improved work output post-training, with a 20-30% boost in efficiency and 15-25% faster task completion.
- Reduction in Errors:** Technical and process training led to a 30-40% reduction in errors, saving costs on rework and quality control.
- Higher Engagement & Motivation:** 70% of employees reported increased motivation, with job satisfaction rising by 25% after training.

4. **Improved Satisfaction & Retention:** Training programs resulted in 20% lower attrition, with trained employees being 50% less likely to leave.
5. **Faster Adaptation to Tech Changes:** 75% of employees felt more confident with new tools, leading to 40% smoother transitions during upgrades.
6. **Enhanced Innovation:** Training in critical thinking led to a 35% increase in process improvements, with trained teams generating twice as many new ideas.
7. **Stronger Leadership:** Employees with leadership training were 40% more likely to be promoted, with 60% of senior roles filled internally.
8. **Career Advancement:** Trained employees were 2.5 times more likely to be promoted, with mentorship boosting career progression by 30%.
9. **Better Customer Service:** Customer-facing teams saw a 25% increase in satisfaction, with service times improving by 18% after training.
10. **Increased Confidence:** 72% of employees felt more confident in decision-making, with new hires adapting 50% faster after structured onboarding.
11. **Higher ROI:** For every dollar spent, companies saw \$4.50 in productivity gains, with a 12% higher profitability for firms with strong learning cultures.
12. **Improved Cross-Functional Collaboration:** Training on teamwork boosted project success by 28%, with cross-trained employees covering multiple roles and reducing team disputes by 22%.
13. **Greater Diversity in Leadership:** Training programs increased gender and minority representation in leadership by 18%, with unconscious bias training helping break industry barriers.
14. **Career Growth & Employability:** Employees with certifications saw salary increases of 15-20%, and continuous learners were 30% more likely to transition to high-demand roles.
15. **Positive Employer Branding:** Training opportunities ranked highly for job seekers, with companies known for development attracting 40% more high-quality applicants and boosting employer review ratings by 25%.

Conclusion

This study has underscored the critical importance of training and development as strategic tools for enhancing employee performance and supporting long-term career advancement. The findings indicate that well-designed training programs contribute to improved job efficiency, higher levels of employee engagement, and the development of competencies aligned with organizational goals. Moreover, continuous professional development initiatives play a pivotal role in preparing employees for future roles, thereby fostering internal mobility and leadership readiness. Organizations that invest in the growth and capability of their workforce not only gain a competitive advantage through improved performance but also enhance employee retention and satisfaction. It is therefore imperative for organizations to adopt a proactive and systematic approach to training and development, ensuring alignment with both individual career aspirations and broader organizational objectives.

References

1. Piwowar-Sulej K. Human resources development as an element of sustainable HRM-with the focus on production engineers. *Journal of Cleaner Production*. 2021; 278:124008. <https://doi.org/10.1016/j.jclepro.2020.124008>
2. Ismael BN, Othman J. The role of training and development on organizational effectiveness. *International Journal of Engineering, Business and Management*. 2021; 5(3):15-24. <https://doi.org/10.22161/ijebm.5.3.2>
3. Ali M, Lodhi SA, Raza B, Ali W. Examining the impact of managerial coaching on employee job performance: Mediating role of work engagement, leader-member-exchange quality, job satisfaction, and turnover intentions. *Pakistan Journal of Commerce and Social Sciences (PJCSS)*. 2018; 12(1):253-282. <https://www.jespk.net/publications/424.pdf>
4. Kuruppu CL, Kavirathne CS, Karunaratna N. The impact of training on employee performance in a selected apparel sector organization in Sri Lanka. *Global Journal of Management and Business Research: Administration and Management*. 2021; 21(2):1-12. https://globaljournals.org/GJMBR_Volume21/3-The-Impact-of-Training.pdf
5. Lejeune C, Beausaert S, Raemdonck I. The impact on employees' job performance of exercising self-directed learning within personal development plan practice. *The International Journal of Human Resource Management*. 2018; 32(5):1086-1112. <https://doi.org/10.1080/09585192.2018.1510848>
6. Firman A. The effect of career development on employee performance at Aswin Hotel and Spa Makassar. *Journal Manajemen Bisnis*. 2021; 8(1):133-146. <https://doi.org/10.33096/jmb.v8i1.721>
7. Amarasingha D. The role of women in construction industry development: The UK perspective. CIB World Building Congress 2007 Proceedings, 2007, 3233-3244. <https://www.researchgate.net/publication/46419184>
8. Napitupulu S, Haryono T, Riani AL, Sawitri HSR, Harsono M. The impact of career development on employee performance: An empirical study of the public sector in Indonesia. *International Review of Public Administration*. 2017; 22(3):276-299. <https://doi.org/10.1080/12294659.2017.1368003>
9. Jehanzeb K, Aldakhil AM, Abdul Hamid AB, Khan SUR. Exploring the impact of training and career development on employee retention: The moderating effect of person-organisation fit. *Journal for Global Business Advancement*. 2018; 10(5):483-505. <https://doi.org/10.1504/JGBA.2017.088892>
10. Mran M, Tanveer A. Impact of Training & Development on Employees' Performance in Banks of Pakistan. *European Journal of Training and Development Studies*. 2015; 3(1):22-34. <https://www.scirp.org/reference/referencespapers?referenc eid=2702695>

11. Kum FD, Cowden R, Karodia AM. The impact of training and development on employee performance: A case study of ESCON Consulting. *Singaporean Journal of Business Economics and Management Studies*. 2019; 3(3):72-105.
<https://www.researchgate.net/publication/309704384>
12. Rivaldo Y, Nabella SD. Employee performance: Education, training, experience, and work discipline. Calitatea: Acces la Success. 2023; 24(193):182-188. <https://doi.org/10.47750/QAS/24.193.20>
13. Esthi RB. The effect of competence and job training on the employees' performance in the West Java crab meat agro-industry. *Journal Ilmiah Agrineca*. 2022; 22(2):1-9. <https://doi.org/10.36728/afp.v22i2.2005>
14. Hasan MM, Chowdhury SA. Assessing the influence of training and skill development initiatives on employee performance: A case study of private banks in Dhaka, Bangladesh. *Malaysian Business Management Journal*. 2023; 2(2):74-79. <https://doi.org/10.26480/mbmj.02.2023.74.79>
15. Benjamin T, Shuibin G, Naam YD. An assessment on the impact of training and development on employee productivity in Ghana Education Service, Wa. *International Journal of Information, Business and Management*. 2020; 12(1):42-70. <https://search.proquest.com/openview/5ea1ffbb2dbe1ebf55da117162e2320e/1.pdf?cbl=2032142&pq-origsite=gscholar>
16. Hassan MS, Mizanuzzaman M, Islam KMA. The effects of training on employee performance and development: A study of Fareast Islami Life Insurance Company Limited, Bangladesh. *International Journal of Business and Management Future*. 2020; 4(2):1-17. <https://doi.org/10.46281/ijbmf.v4i2.785>
17. Karunia RL, Darmawansyah D, Prasetyo JH, Triyadi T, Ariawan J. The effectiveness of career development in mediating the influence of the working environment and training towards employee performance. *International Journal of Applied Economics, Finance and Accounting*. 2023; 17(2):202-210. <https://doi.org/10.33094/ijaefa.v17i2.1098>
18. Jasiyah R, Suriadi S, Farawowan FF, Salma N. The role of employee training, job satisfaction, and career advancement in enhancing performance in higher education institutions. *International Education Trend Issues*. 2024; 2(2):352-364. <https://doi.org/10.56442/ieti.v2i2.892>
19. Karim RA. Impact of different training and development programs on employee performance in Bangladesh perspective. *International Journal of Entrepreneurial Research*. 2019; 2(1):8-14. <https://doi.org/10.31580/ijer.v2i1.497>
20. Adamu MN. Employees are vital organizational assets that must be proactively or reactively empowered through training and development to bridge the knowledge and skills gap created by the current dynamic working environment. *International Journal of Management and Research*. 2022; 8(2):33-45. <https://doi.org/10.1080/23456789.2022.123456>