A Study on Factors Influencing Employee Productivity

Showsphendavid M,

Business Analytics, Department of Management Studies, Vels Institute of Science Technology and Advanced Studies (VISTAS)

Corresponding Author: Dr Sudha S.,

Professor, Department of Management Studies, Vels Institute of Science Technology and Advanced Studies (VISTAS),

Orcid id:https://orcid.org/0000-0002-5896-3999 ,Mail-id: srisudha.research18@gmail.com

How to Cite this Article:
M, S. (2026). A Study on Factors Influencing Employee Productivity. International Journal of Creative and Open Research in Engineering and Management, 02(05). https://doi.org/10.55041/ijcope.v2i5.467

https://doi.org/10.55041/ijcope.v2i5.467

ABSTRACT

This study explores the major factors influencing employee productivity in the IT services sector, with special focus on the working environment, compensation and benefits, employee motivation, and training and development. In today's competitive business environment, employee productivity plays a vital role in determining organizational success and long-term growth. The study adopts a descriptive research design to better understand how these factors affect employees in their day-to-day work life. Primary data were collected from 100 employees working across five different departments through a structured questionnaire. The collected data were analysed using various statistical tools such as Cronbach's Alpha, Shapiro-Wilk normality test, t-test, ANOVA, Chi-Square test, Pearson correlation, and multiple linear regression. The findings revealed that the regression model explained 70.9% of the variation in employee productivity. Among all the variables studied, employee motivation emerged as the strongest factor influencing productivity, followed by working environment, compensation and benefits, and training and development. The study also identified gender as a significant factor affecting productivity levels, highlighting the need for organizations to adopt fair and inclusive HR practices. The results suggest that organizations can improve employee performance by creating a supportive work environment, offering fair compensation, motivating employees effectively, and investing in continuous learning and development programs. The study further emphasizes the importance of communication, employee well-being, and management support in building a productive workforce. Overall, the research provides practical insights for HR professionals and organizational leaders to enhance employee engagement, satisfaction, and organizational performance in the IT services industry for sustainable organizational growth and success.

Keywords: Employee Productivity, Working Environment, Compensation and Benefits, Employee Motivation, Training and Development, IT Services Sector, HR Practices

INTRODUCTION

In today's competitive global economy, employee productivity has become a top priority for organizations particularly in the IT sector, where knowledge-intensive work, rapid technological change, and demanding customers create a uniquely challenging environment. Unlike manufacturing or retail, productivity in IT is largely invisible to the naked eye. It is shaped by cognitive effort, creativity, collaboration, and the ability to adapt, rather than by simple output metrics. Research consistently points to four key factors that determine how effectively employees perform: work environment, compensation and benefits, employee motivation, and training and development. The work environment both physical and psychological either unlocks or blocks performance through ergonomic design, leadership behaviour, and organizational culture. Compensation signals to employees how valued they truly are, directly affecting their morale and commitment. Motivation, whether it comes from within or from external rewards, drives the energy and direction with which people approach their day-to-day responsibilities. And training and development equips employees with the skills they need to perform well and stay relevant in a fast-changing landscape. Despite the growing awareness of these factors, many IT organizations especially small and medium-sized enterprises continue to wrestle with low engagement, high attrition, and inconsistent performance. This study directly addresses that problem by empirically investigating how these four factors collectively influence employee productivity within an IT-based organization, with the goal of offering practical, context-specific insights that can guide more informed and effective management decisions.

REVIEW OF LITERATURE

Ismail et al (2023) explored how the work environment shapes employee performance and found that employees in supportive, well-managed conditions demonstrate noticeably higher productivity and job satisfaction. Their study made it clear that both physical comfort and psychological well-being matter equally, and that poor working conditions will inevitably lead to stress and reduced efficiency. The authors concluded that organizations must actively invest in creating healthy, employee-friendly workplaces if they want to sustain long-term performance.

Setiawan et al (2022) examined how different compensation structures affect productivity and found that performance-linked pay motivates employees to contribute more meaningfully toward organizational goals. A key insight from their study was that fairness and transparency in reward systems are non-negotiable employees who see their compensation as equitable show greater engagement and efficiency. The authors concluded that well-designed compensation systems, when aligned with what the organization is trying to achieve, serve as a powerful engine of sustained productivity.

Sharma et al (2023) investigated how motivation shapes organizational productivity and found that motivated employees consistently deliver higher efficiency, lower absenteeism, and stronger commitment to their roles. Their study highlighted that both financial and non-financial incentives play important parts, and that leadership has a particularly strong influence on how motivated employees feel. The authors concluded that organizations that genuinely invest in motivating their people are far better positioned to achieve sustainable performance over time.

Noe et al (2020) looked at how training and development initiatives affect employee productivity and found that employees who have developed their skills perform their tasks more effectively and adapt more readily when the organization changes around them. The study underscored that continuous learning builds both confidence and competence, and that organizations committed to employee development consistently achieve higher productivity levels. Their conclusion was clear: training is not just a support activity it is a strategic investment essential for long-term organizational growth.

Ali et al (2022) identified the key factors influencing employee productivity and found that work environment, motivation, leadership, and compensation together shape performance outcomes. Their study revealed that positive workplace conditions and employee satisfaction are central to maintaining high productivity, and that management must address both internal and external factors to keep results consistent. The authors concluded that productivity is fundamentally multi-dimensional and requires a comprehensive, organization-wide approach to be effectively sustained.

RESEARCH METHODOLOGY

This study uses a descriptive research design to systematically understand how employees perceive and experience the workplace factors that influence their productivity. A sample of 110 employees was drawn from HR, Finance, Marketing, Operations, and IT departments, and after removing incomplete responses, 100 valid submissions were used for analysis. Convenience sampling was the method of choice, selecting participants based on availability and willingness a practical approach given the study's time and resource constraints. Primary data was collected through a structured questionnaire covering work environment, motivation, compensation, training, and productivity. The questionnaire was administered over four months, from January to April 2026. Secondary data was sourced from journals, academic articles, and company records.

To ensure the analysis was both robust and credible, a range of statistical tools were employed. Cronbach's Alpha was used to confirm the reliability of the measurement scales. Shapiro-Wilk testing assessed normality, supplemented by skewness and kurtosis analysis. Group differences were examined using an independent samples t-test and one-way ANOVA. Associations between categorical variables were tested through Chi-Square analysis. Pearson correlation captured the relationships between continuous variables, and multiple regression was used to determine how well the four independent variables together predict employee productivity.

RESEARCH GAP

A review of existing literature reveals a few important gaps that this study seeks to address. Most previous studies have examined productivity determinants in isolation, offering limited insight into how these factors work together. Research has also tended to focus disproportionately on large enterprises and manufacturing settings, leaving small and medium-sized IT organizations relatively understudied. Emerging challenges such as remote work, digital fatigue, and hybrid working models have not yet been sufficiently theorized. Furthermore, gender and regional contextual variables are rarely integrated into quantitative models, even though they clearly matter.

This study addresses these gaps directly by simultaneously examining all four predictors within an IT services context, incorporating gender as a moderating variable, and grounding the findings in a dataset that is specific to this regional and organizational setting.

RESULTS & DISCUSSION

Test	Variable / Purpose	Test Value	p-value	Interpretation / Result
Reliability (Cronbach's Alpha)	Working Environment	α = 0.821	–	Acceptable Reliability
Reliability (Cronbach's Alpha)	Compensation & Benefits	α = 0.806	–	Acceptable Reliability
Reliability (Cronbach's Alpha)	Employee Motivation	α = 0.843	–	Good Reliability
Reliability (Cronbach's Alpha)	Training & Development	α = 0.798	–	Acceptable Reliability
Reliability (Cronbach's Alpha)	Employee Productivity	α = 0.831	–	Good Reliability
Normality (Shapiro-Wilk)	Working Environment	W = 0.982	0.112	Normally Distributed
Normality (Shapiro-Wilk)	Compensation & Benefits	W = 0.978	0.086	Normally Distributed
Normality (Shapiro-Wilk)	Employee Motivation	W = 0.981	0.154	Normally Distributed
Normality (Shapiro-Wilk)	Training & Development	W = 0.979	0.095	Normally Distributed
Normality (Shapiro-Wilk)	Employee Productivity	W = 0.981	0.108	Normally Distributed
Skewness & Kurtosis	Working Environment	Skew: -0.85 / Kurt: 0.65	–	Normal Distribution Confirmed
Skewness & Kurtosis	Compensation & Benefits	Skew: -0.72 / Kurt: 0.48	–	Normal Distribution Confirmed
Skewness & Kurtosis	Employee Motivation	Skew: -0.91 / Kurt: 0.72	–	Normal Distribution Confirmed
Skewness & Kurtosis	Training & Development	Skew: -0.66 / Kurt: 0.40	–	Normal Distribution Confirmed
Skewness & Kurtosis	Employee Productivity	Skew: -0.79 / Kurt: 0.55	–	Normal Distribution Confirmed

Independent Samples T-Test	Employee Productivity (Group Difference)	t = 2.412, df = 98, Mean Diff = 0.50	0.018	Significant Group Difference
One-Way ANOVA	Workplace Factors vs Productivity	F = 3.872, SS = 4.215, MS = 1.054	0.005	Significant Difference Across Groups
Chi-Square Test	Gender vs Employee Productivity	χ^2 = 8.764, df = 2	0.013	Significant Association
Pearson Correlation	Work Environment ↔ Productivity	r = 0.71	0.000	Strong Positive Relationship
Pearson Correlation	Compensation & Benefits ↔ Productivity	r = 0.69	0.000	Strong Positive Relationship
Pearson Correlation	Employee Motivation ↔ Productivity	r = 0.75	0.000	Strongest Positive Relationship
Pearson Correlation	Training & Development ↔ Productivity	r = 0.66	0.000	Strong Positive Relationship
Multiple Regression (Model Summary)	Predictors of Employee Productivity	R = 0.842, R^2 = 0.709, Adj. R^2 = 0.697	–	Model Explains 70.9% Variance
Multiple Regression (Coefficients)	Work Environment	β = 0.312, B = 0.281, t = 3.902	0.000	Significant Predictor
Multiple Regression (Coefficients)	Compensation & Benefits	β = 0.287, B = 0.245, t = 3.601	0.001	Significant Predictor
Multiple Regression (Coefficients)	Employee Motivation	β = 0.356, B = 0.334, t = 4.453	0.000	Strongest Predictor
Multiple Regression (Coefficients)	Training & Development	β = 0.221, B = 0.198, t = 3.092	0.023	Significant Predictor

What the results of this study tell us, taken together, is a clear and compelling story about what genuinely drives employee productivity in the IT sector. To start with, all five measurement scales demonstrated strong reliability, which means we can trust that the data collected actually reflects what employees experience and believe. Normality tests further confirmed that the data was well-distributed, giving the statistical results solid validity. When it came to group differences, it became evident that productivity does not look the same across all employees or departments meaningful variations exist, shaped by who people are and the departmental environment they work in. It was also interesting, and important, that gender emerged as a relevant factor. This tells us that the productivity experience is not uniform and that inclusive HR practices deserve far more organizational attention than they typically receive. Looking at the relationships between variables, all four factors work environment, compensation and benefits, motivation, and training showed strong positive connections with productivity, with employee motivation standing out as the most powerful of them all. The regression model brought everything together in a compelling way, explaining nearly 71% of what determines productivity and confirming that motivation, environment, fair compensation, and quality training are not just good management practices they are genuine performance drivers. When organizations truly invest in their people by nurturing motivation, improving working conditions, rewarding fairly, and developing skills, the results show up directly in how productively their employees perform.

CONCLUSION

This study set out to investigate the key factors influencing employee productivity in an IT-sector organization, drawing on primary data from 100 employees and supported by an extensive review of existing literature. The findings are both clear and actionable. Employee motivation stands out as the most critical driver of productivity when employees find genuine purpose in their work, receive meaningful recognition, and are given real room to grow, their performance improves significantly. This makes it essential for organizations to invest in both intrinsic and extrinsic motivational structures, not just one or the other. The work environment also plays a decisive role. Physical infrastructure, psychological safety, team dynamics, and supervisory behaviour all shape how effectively employees perform. Positive, well-managed environments consistently produce higher output and lower attrition and this is not a coincidence. Compensation and benefits emerged as the foundation of employee trust. Equitable pay, transparent structures, and performance-linked rewards strengthen loyalty, satisfaction, and long-term commitment in ways that are hard to replace with anything else. Training and development proved to be a strategic investment rather than an optional activity. Structured, relevant learning programs directly improve both competence and confidence, with measurable impacts on productivity. The finding that gender is a significant variable in productivity outcomes ($\chi^2 = 8.764$, $p = 0.013$) is a clear signal that HR policies need to evolve to better accommodate the diverse needs of all employees. Collectively, the multiple regression model's R^2 of 0.709 confirms that approximately 70.9% of the variation in employee productivity is explained by these four variables offering strong empirical support and a reliable foundation for informed organizational decision-making.

FINDINGS OF THE STUDY

The statistical analysis revealed several important findings that together paint a coherent picture of the workforce under study. The sample was predominantly male, with most respondents aged between 21 and 25 years, reflecting an early-career IT workforce — and most falling within the 1–3-year experience bracket, suggesting a largely junior-to-mid-level employee base. All reliability measures confirmed the internal consistency of the instruments used, while normality tests validated the use of parametric statistical techniques throughout the analysis. The independent samples t-test revealed a statistically significant difference in productivity between

employee subgroups, confirming that meaningful variation exists across the workforce. The one-way ANOVA further established significant inter-departmental differences in productivity levels, suggesting that departmental context plays a notable role in shaping how workplace factors influence individual performance. The chi-square test confirmed a significant association between gender and employee productivity, indicating that gender is a relevant moderating variable that organizations would do well to pay attention to.

IMPLICATIONS

The findings carry practical guidance for managers and policymakers. Since motivation proved to be the strongest driver of productivity, organizations need to look beyond pay raises and invest in recognition programs, clear career growth paths, and strong leadership development. People want to know their contributions matter and building systems that show them this is not a luxury but a necessity. The work environment matters deeply too, on both dimensions. Physical comfort and psychological safety must be prioritized together, helping employees feel both confident and focused while they work. Compensation should be fair, transparent, and performance-linked, supported by flexible benefits and wellness initiatives that genuinely make employees feel valued not just paid. Training needs to shift from something that happens occasionally to something that is embedded in everyday work life. Personalized learning, mentorship, and digital development tools should all be part of how the organization operates day to day, not treated as add-ons. The gender-productivity link identified in this study also signals an urgent need to review HR practices around role assignments, promotions, and equal access to opportunities ensuring that inclusion is treated as a genuine priority rather than a formality on paper. Finally, IT organizations are strongly encouraged to embrace data-driven HR practices, using regular surveys, productivity audits, and real-time analytics to stay ahead of workforce challenges and make smarter, people-cantered decisions.

REFERENCES

Ali, A., et al. (2022). Workplace environment and employee performance: A multi-mediation model. Journal of Organizational Behavior, 43(2), 112–128.

Ali, M., et al. (2020). Compensation and employee engagement. International Journal of Human Resource Management, 31(5), 245–260.

Ali, M., et al. (2023). Training and employee engagement. Journal of Management Development, 42(3), 89–104.

Atti, C., et al. (2022). Remote working environment and productivity. Journal of Applied Psychology, 107(4), 567–582.

Awoitau, R., et al. (2024). Compensation and employee performance in public sector. Public Administration Review, 84(1), 78–95.

Bloom, R., et al. (2020). Productivity measurement in organizations. Management Science, 66(8), 3421–3438.

Brown, D., et al. (2021). Learning and development in organizations. Human Resource Development Quarterly, 32(1), 45–62.

Brown, D., et al. (2022). Reward systems and motivation. Compensation and Benefits Review, 54(2), 112–128.

Brynjolfsson, A., et al. (2021). Digital transformation and productivity. Harvard Business Review, 99(5), 102–118.

Chen, L., et al. (2023). Physical work environment and job satisfaction. Journal of Environmental Psychology, 87, 101–115.

Chen, L., et al. (2024). Motivation and employee engagement. Organizational Behavior and Human Decision Processes, 180, 104–119.

Deci, M., & Ryan, R. (2020). Intrinsic motivation and employee productivity. Psychological Review, 127(6), 891–908.

Kim, J., et al. (2021). Pay satisfaction and employee productivity. Industrial and Labor Relations Review, 74(3), 678–695.

Kumar, S., et al. (2021). Training effectiveness and employee performance. Training and Development Journal, 75(4), 22–36.

Kumar, S., et al. (2022). Employee productivity and organizational growth. Strategic Management Journal, 43(6), 1100–1118.

Kumar, S., et al. (2024). Workplace safety and employee productivity. Safety Science, 172, 106432.

Lee, H., et al. (2022). Productivity and work engagement. Work & Stress, 36(2), 145–162.

Lee, H., et al. (2025). Digital motivation and employee productivity. Computers in Human Behavior, 154, 107893.

Lee, K., et al. (2023). Compensation fairness and productivity. Journal of Applied Psychology, 108(7), 1123–1140.

Rahman, M., et al. (2021). Organizational climate and employee productivity. Journal of Organizational Effectiveness, 8(3), 289–305.

Schmid, Y., & Dowling, M. (2020). Workplace technologies and employee productivity. Technovation, 94, 102–117.

Setiawan, F., et al. (2022). Compensation systems and employee productivity. International Journal of Productivity and Performance Management, 71(6), 2234–2251.

Sharma, R., et al. (2023). Employee motivation and organizational productivity. Organizational Dynamics, 52(3), 100940.

Twum, S., et al. (2024). Compensation and employee performance: Mediating role of job satisfaction. Journal of Business and Psychology, 39(2), 345–362.

Wilson, J., et al. (2020). Motivation and job satisfaction. Journal of Occupational and Organizational Psychology, 93(3), 567–583.