

A STUDY OF THE IMPACT OF TRAINING AND DEVELOPMENT ON JOB SATISFACTION AMONG EMPLOYEES IN HIGHER EDUCATION INSTITUTIONS IN BHOPAL

Abstract

Training and development is recognized as an important human resource management practice that enhances employees' knowledge, skills, and professional competencies, thereby contributing to organizational effectiveness and employee well-being. In higher education institutions, continuous professional development has become increasingly important due to rapid technological advancements, changing educational policies, and growing expectations for quality education. The present study examines the relationship between training and development and job satisfaction among employees in higher education institutions in Bhopal.

The study adopted a descriptive research design and collected primary data from 100 teaching and administrative employees working in government and private higher education institutions in Bhopal using a structured five-point Likert scale questionnaire. The reliability of the instrument was confirmed through Cronbach's Alpha values of 0.782 for Job Satisfaction and 0.722 for Training and Development. Data were analyzed using IBM SPSS Statistics with descriptive statistics, Pearson Correlation Analysis, and Simple Linear Regression Analysis.

The findings revealed a moderately strong positive and statistically significant relationship between training and development and job satisfaction ($r = 0.644$, $p < 0.001$). Regression analysis further indicated that training and development has a significant positive impact on job satisfaction ($R^2 = 0.414$, $\beta = 0.644$, $B = 0.750$, $p < 0.001$), explaining 41.4% of the variance in job satisfaction. The results suggest that employees who perceive better training and development opportunities report higher levels of job satisfaction.

The study concludes that continuous investment in employee training and development is essential for improving job satisfaction and enhancing institutional effectiveness. The findings provide useful insights for higher education administrators and policymakers in designing effective professional development initiatives that promote employee satisfaction and organizational performance.

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1. INTRODUCTION

"Train people well enough so they can leave, treat them well enough so they don't want to."

Richard Branson

Human resources are one of the most valuable assets of any organization because employees' knowledge, skills and commitment directly contribute to organizational success. In higher education institutions, employees play an important role in teaching, research, administration, and student support. The rapid advancement of technology, changing educational policies, and increasing expectations for quality education has made continuous employee development essential. Armstrong and Taylor (2023) stated that organizations can achieve sustainable performance by investing in employee learning and development. Similarly, OECD (2023) emphasized that developing employee competencies is essential for improving the quality and effectiveness of higher education institutions.

Training and development is an important human resource management practice that helps employees acquire the knowledge, skills and abilities required to perform their jobs effectively. Noe (2020) explained that training enhances employees' current job performance, while development prepares them for future responsibilities and career growth. Earlier studies also highlighted the importance of employee development. Tharenou (2001) reported that employees who receive organizational support are more likely to participate in training programmes and apply their learning at work. Likewise, Bartlett (2001) found that training opportunities strengthen organizational commitment and create positive work attitudes among employees.

The effectiveness of training depends not only on the quality of training programmes but also on employees' ability to transfer their learning to the workplace. Saks and Belcourt (2006) reported that organizational support before and after training plays an important role in improving the transfer of training. Similarly, Aguinis and Kraiger (2009) concluded that training and development benefit employees as well as organizations by improving knowledge, skills, motivation, performance and organizational effectiveness. Aguinis (2019) further emphasized that employee development is closely linked to performance management and contributes to higher employee engagement and organizational success.

Job satisfaction is another important factor that influences employee behaviour and organizational

performance. Robbins and Judge (2023) described job satisfaction as the positive feelings employees have towards their jobs after evaluating different aspects of their work. Spector (2022) explained that job satisfaction is influenced by factors such as organizational support, recognition, career advancement, leadership, working conditions and professional development. Employees who are satisfied with their jobs are generally more committed, productive and motivated to achieve organizational goals.

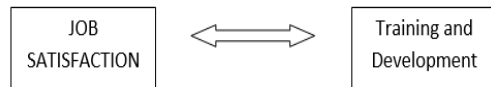
Training and development has consistently been recognized as an important factor influencing job satisfaction. Employees who receive opportunities to improve their knowledge and skills often feel valued by their organizations, resulting in greater confidence, motivation and commitment. Continuous learning also enables employees to adapt to technological changes and improve their professional competencies. Armstrong and Taylor (2023) observed that employee development has become a strategic investment for organizations, while OECD (2023) highlighted lifelong learning as an important requirement for improving institutional performance.

The importance of training and development is particularly evident in higher education institutions, where faculty members and administrative staff are expected to continuously update their academic, research, managerial and digital competencies. UNESCO (2024) emphasized that continuous professional development is essential for improving educational quality, innovation, and institutional effectiveness. Investing in employee development therefore supports both individual growth and institutional excellence.

Although previous studies have established a positive relationship between training and development and employee outcomes such as performance, organizational commitment and job satisfaction, most research has been conducted in corporate organizations, manufacturing, healthcare and banking sectors. Comparatively fewer studies have examined this relationship in higher education institutions, particularly in the Indian context. Moreover, limited empirical evidence is available regarding higher education institutions in Bhopal. Therefore, the present study aims to examine the impact of training and development on job satisfaction among employees in higher education institutions in Bhopal. The findings are expected to contribute to the existing literature and provide useful recommendations for

improving employee development practices in educational institutions.

Figure – Depicts the relation between Job Satisfaction & Training and Development, Authors Compilation.



REVIEW OF LITERATURE

Job Satisfaction

Locke (1976) defined job satisfaction as a positive emotional state resulting from employees' evaluation of their job and work experiences. Building on this definition, Robbins and Judge (2023) described job satisfaction as the positive feelings employees develop towards their jobs after assessing different aspects of their work, such as the nature of the job, supervision, recognition, working conditions, and career opportunities. Similarly, Spector (2022) reported that job satisfaction is influenced by several organizational factors, including leadership, organizational support, compensation, career advancement, interpersonal relationships, and opportunities for professional development. From a theoretical perspective, Herzberg et al. (1959) explained through the Two-Factor Theory that hygiene factors, such as salary, supervision, and working conditions, help reduce dissatisfaction, while motivators, including achievement, recognition, responsibility, and opportunities for growth, increase employee satisfaction. Likewise, Maslow (1943) suggested through the Hierarchy of Needs Theory that employees become more satisfied when organizations fulfil both their basic and higher-level needs, including esteem and self-actualization. Collectively, these studies indicate that job satisfaction is a multidimensional concept that influences employee motivation, commitment, performance, and retention, making it an important outcome for organizational success.

Training and Development

Noe (2020) explained that training and development is an important human resource management practice that helps employees improve their knowledge, skills, and abilities to perform their current jobs effectively while preparing them for future responsibilities and career growth. Supporting this view, Armstrong and Taylor (2023) stated that organizations that continuously invest

in employee learning and development are better able to improve employee competence, productivity, and overall organizational performance. Earlier, Tharenou (2001) reported that employees are more willing to participate in training programmes when they receive organizational support and encouragement, increasing the likelihood of applying newly acquired knowledge and skills in the workplace. Similarly, Bartlett (2001) found that providing employees with training opportunities strengthens organizational commitment and encourages positive work attitudes. Further extending these findings, Saks and Belcourt (2006) explained that the success of training depends not only on the quality of training programmes but also on employees' ability to transfer the acquired knowledge and skills to their jobs with continuous organizational support. Likewise, Aguinis and Kraiger (2009) concluded that effective training and development improve employee knowledge, skills, motivation, job performance, and organizational effectiveness. Aguinis (2019) further emphasized that employee development is closely linked with performance management because continuous learning enhances employee engagement, professional competence, and long-term organizational growth. More recently, OECD (2023) highlighted that continuous professional development is essential for strengthening employee competencies and improving institutional quality, while UNESCO (2024) emphasized that regular professional development promotes innovation, educational quality, and organizational effectiveness in higher education institutions. Overall, these studies show that training and development is a strategic investment that benefits both employees and organizations.

Relationship between Training and Development and Job Satisfaction

Several studies have reported a positive relationship between training and development and job satisfaction. Bartlett (2001) found that employees who receive adequate training opportunities demonstrate higher organizational commitment and more positive work attitudes, which contribute to greater job satisfaction. Supporting these findings, Aguinis and Kraiger (2009) concluded that effective training and development improve employee competence, confidence, motivation, and job satisfaction by enhancing professional skills and performance. Similarly, Aguinis (2019) stated that organizations investing in employee development create a culture of continuous learning that strengthens

employee engagement and satisfaction. Armstrong and Taylor (2023) further observed that continuous learning has become a strategic human resource practice that helps organizations retain motivated, competent, and satisfied employees. In the education sector, OECD (2023) reported that continuous professional development enhances employee capability and institutional performance, while UNESCO (2024) emphasized that regular learning opportunities improve employee effectiveness and contribute to better educational outcomes. Overall, the existing literature consistently suggests that training and development positively influences job satisfaction by improving employees' knowledge, confidence, career growth opportunities, and organizational commitment. However, limited empirical studies have examined this relationship among employees working in higher education institutions in Bhopal, highlighting the need for the present study.

RESEARCH GAP

Previous studies have shown that training and development positively influence employee performance, organizational commitment, and job satisfaction across various sectors such as manufacturing, banking, healthcare, and corporate organizations (Bartlett, 2001; Aguinis & Kraiger, 2009; Noe, 2020; Armstrong & Taylor, 2023). However, comparatively few studies have examined this relationship in higher education institutions, especially in the Indian context. Although OECD (2023) and UNESCO (2024) have highlighted the importance of continuous professional development in improving educational quality and institutional effectiveness, limited empirical evidence is available on how training and development affects job satisfaction among employees in higher education institutions in Bhopal. Therefore, the present study aims to fill this gap by examining the impact of training and development on job satisfaction among employees in higher education institutions in Bhopal.

2. OBJECTIVES

To examine the relationship between training and development and job satisfaction among employees in higher education institutions in Bhopal.

To analyze the impact of training and development on job satisfaction among employees in higher education institutions in Bhopal.

HYPOTHESIS

Null Hypothesis (H01): There is no significant relationship between training and development and job satisfaction

among employees in higher education institutions in Bhopal.

Alternate Hypothesis (H11): There is a significant relationship between training and development and job satisfaction among employees in higher education institutions in Bhopal.

Null Hypothesis (H02): Training and development has no significant impact on job satisfaction among employees in higher education institutions in Bhopal.

Alternate Hypothesis (H12): Training and development has a significant impact on job satisfaction among employees in higher education institutions in Bhopal.

3. RESEARCH METHODOLOGY

The study adopted a descriptive research design to examine the relationship and impact of training and development on job satisfaction among employees in higher education institutions in Bhopal. The descriptive design enabled the systematic analysis of the study variables without manipulation (Kothari, 2004, 2014). Primary data were collected through a structured questionnaire based on a five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree), which was validated through expert review and a pilot study (Nunnally, 1978; Robbins & Judge, 2023). Training and Development was considered the independent variable, while Job Satisfaction was the dependent variable.

The study surveyed 100 teaching and administrative employees from government and private higher education institutions in Bhopal using the simple random sampling technique. Demographic information, including gender, age, educational qualification, work experience, and type of institution, was also collected (Creswell, 2014; Sekaran & Bougie, 2016). The reliability of the instrument was assessed using Cronbach's Alpha, yielding values of 0.782 for Job Satisfaction and 0.722 for Training and Development, indicating acceptable internal consistency (Nunnally, 1978).

Data were analyzed using IBM SPSS Statistics. Descriptive statistics summarized the study variables, Pearson Correlation Analysis examined the relationship between training and development and job satisfaction, and Simple Linear Regression Analysis assessed the impact of training and development on job satisfaction (Hair et al., 2010). Ethical principles, including informed consent, confidentiality, and voluntary participation, were strictly maintained throughout the study (Bryman & Bell, 2015).

DATA ANALYSIS AND INTERPRETATION

The study examined the relationship and impact of training and development on job satisfaction among employees in higher education institutions in Bhopal. IBM SPSS Statistics was used to analyze the collected data. Descriptive statistics summarized the demographic characteristics and overall trends of the study variables. Pearson Correlation Analysis was used to examine the strength and direction of the relationship between training and development and job satisfaction, while Simple Linear Regression Analysis assessed the impact of training and development on job satisfaction by determining the significance and predictive ability of the independent variable (training and development) on the dependent variable (job satisfaction) (Hair et al., 2019; Sekaran & Bougie, 2016). The findings indicate that effective training and development practices positively influence employees' job satisfaction, highlighting the importance of continuous learning and professional development in higher education institutions.

Table 1: SPSS Tests Applied for Research Objectives

Objective	Variables	Hypotheses	SPSS Test Used	Purpose / Justification
1. To examine the relationship between training and development and job satisfaction among employees in higher education institutions in Bhopal.	IV: Training and Development DV: Job Satisfaction	H ₀₁ : There is no significant relationship between training and development and job satisfaction. H ₁₁ : There is a significant relationship between training and development and job satisfaction.	Pearson Correlation Analysis	Pearson Correlation measures the strength, direction, and significance of the relationship between the independent and dependent variables (Hair et al., 2019).
2. To analyze the impact of training and development on job satisfaction among employees in higher education institutions in Bhopal.	IV: Training and Development DV: Job Satisfaction	H ₀₂ : Training and development has no significant impact on job satisfaction. H ₁₂ : Training and development has a significant impact on job satisfaction.	Simple Linear Regression Analysis	Simple Linear Regression determines the extent to which training and development predicts job satisfaction and measures the significance and predictive effect of the independent variable on the dependent variable (Hair et al., 2019).

Table 2: Descriptive Statistics of Job Satisfaction and Training & Development

Variable	N	Minimum	Maximum	Mean	Standard Deviation
Job Satisfaction	100	6.00	23.00	12.55	3.72
Training and Development	100	7.00	21.00	12.63	3.20

Table 2 presents the descriptive statistics of the two study variables. The mean score of Job Satisfaction was 12.55 (SD = 3.72), with scores ranging from 6.00 to 23.00. This indicates that employees reported a moderate level of job satisfaction, with some variation in their responses. Similarly, the mean score of Training and Development was 12.63 (SD = 3.20), with scores ranging from 7.00 to 21.00. The findings suggest that employees had moderate perceptions regarding the training and development practices implemented in their institutions. The standard deviation values indicate reasonable variation in respondents' opinions. Overall, the descriptive statistics provide an overview of the study variables and indicate that the data are suitable for further analysis to examine the relationship and impact of training and development on job satisfaction among employees in higher education institutions in Bhopal.

Table 3: Pearson Correlation Analysis between Training and Development and Job Satisfaction

Variables	Job Satisfaction	Training and Development
Job Satisfaction	1	0.644**
Training and Development	0.644**	1
Significance (2-tailed)	—	0.000
N	100	100

Correlation is significant at the 0.01 level (2-tailed)

The Pearson Correlation Analysis was conducted to examine the relationship between training and development and job satisfaction among employees in higher education institutions in Bhopal. The results indicate a moderately strong positive and statistically significant relationship between the two variables ($r = 0.644$, $p = 0.000$). This suggests that employees who perceive better training and development opportunities are more likely to report higher levels of job satisfaction.

Table 4: Model Summary of Simple Linear Regression Analysis

Model	R	R Square (R ²)	Adjusted R Square	Std. Error of the Estimate
1	0.644	0.414	0.408	2.864

Table 4 presents the model summary of the simple linear regression analysis. The correlation coefficient ($R = 0.644$) indicates a moderately strong positive relationship between training and development and job satisfaction. The coefficient of determination ($R^2 = 0.414$) shows that

41.4% of the variation in job satisfaction is explained by training and development, while the remaining 58.6% is influenced by other factors not included in the study. The Adjusted R^2 value of 0.408 further confirms the stability and explanatory power of the regression model.

Table 5: ANOVA for Simple Linear Regression Analysis

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	568.663	1	568.663	69.307	0.000
Residual	804.087	98	8.205		
Total	1372.750	99			

Table 5 presents the ANOVA results for the regression model. The F-value of 69.307 with a significance value of 0.000 indicates that the regression model is statistically significant. Since the significance value is less than 0.05, the model provides a good fit for the data. This confirms that training and development significantly explains the variation in job satisfaction among employees in higher education institutions in Bhopal and supports the use of regression analysis for examining the impact of the independent variable on the dependent variable.

Table 6: Regression Coefficients for the Impact of Training and Development on Job Satisfaction

Predictor	Unstandardized Coefficient (B)	Standard Error	Standardized Coefficient (β)	t	Sig.
Constant	3.079	1.173	–	2.625	0.010
Training and Development	0.750	0.090	0.644	8.325	0.000

Table 6 presents the regression coefficients for the impact of training and development on job satisfaction. The results show that Training and Development has a positive and statistically significant effect on Job Satisfaction ($B = 0.750$, $\beta = 0.644$, $t = 8.325$, $p = 0.000$). The unstandardized coefficient ($B = 0.750$) indicates that a one-unit increase in training and development leads to a 0.750-unit increase in job satisfaction. The standardized coefficient ($\beta = 0.644$) further indicates a moderately strong positive impact of training and development on job satisfaction.

Table 7: Summary of Correlation and Regression Analysis for All Objectives

Objective	Statistical Test	Key Statistics	Hypothesis Decision	Interpretation
Objective 1: To examine the relationship between training and	Pearson Correlation Analysis	$r = 0.644$, $p = 0.000$	Reject H_{01} ; Accept H_{11}	A moderately strong positive and statistically significant relationship exists between training

development and job satisfaction among employees in higher education institutions in Bhopal.				and development and job satisfaction. Employees who perceive better training and development opportunities tend to report higher job satisfaction.
Objective 2: To analyze the impact of training and development on job satisfaction among employees in higher education institutions in Bhopal.	Simple Linear Regression Analysis	$R = 0.644$, $R^2 = 0.414$, Adjusted $R^2 = 0.408$, $F = 69.307$, $B = 0.750$, $\beta = 0.644$, $t = 8.325$, $p = 0.000$	Reject H_{02} ; Accept H_{12}	Training and development has a significant positive impact on job satisfaction. The model explains 41.4% of the variation in job satisfaction, indicating that better training and development practices contribute to higher job satisfaction among employees.

4. FINDINGS

The study examined the relationship and impact of training and development on job satisfaction among employees in higher education institutions in Bhopal. The major findings of the study are presented objective-wise as follows:

Objective 1: To examine the relationship between training and development and job satisfaction among employees in higher education institutions in Bhopal.

The findings revealed a moderately strong positive and statistically significant relationship between training and development and job satisfaction ($r = 0.644$, $p < 0.001$). This indicates that employees who perceive better training and development opportunities are more likely to experience higher levels of job satisfaction.

Objective 2: To analyze the impact of training and development on job satisfaction among employees in higher education institutions in Bhopal.

The regression analysis showed that training and development has a significant positive impact on job satisfaction ($R^2 = 0.414$, $F = 69.307$, $p < 0.001$). The findings indicate that training and development explains 41.4% of the variation in job satisfaction, and a one-unit increase in training and development leads to a 0.750-unit increase in job satisfaction ($B = 0.750$). This confirms that effective training and development practices contribute significantly to improving employees' job satisfaction.

Overall, the findings confirm that training and development is an important factor influencing job satisfaction among employees in higher education institutions in Bhopal. Providing continuous learning opportunities and well-planned training programmes can help improve employee satisfaction and contribute to better institutional performance.

5. CONCLUSION

The study concludes that training and development plays a significant role in enhancing employees' job satisfaction among employees in higher education institutions in Bhopal. The findings revealed a statistically significant positive relationship between training and development and job satisfaction, with training and development emerging as a significant predictor of employees' job satisfaction. The study highlights the importance of providing continuous learning opportunities, skill development programmes, and professional growth initiatives to improve employee satisfaction and institutional effectiveness. Therefore, higher education institutions should prioritize systematic training and development practices as a strategic human resource management initiative to foster a motivated, competent, and satisfied workforce.

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