



RESEARCH ARTICLE

Impact of Training on Employee Performance in Telecommunication Sector: Jalalabad, Nangarhar

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ABSTRACT

This study examines the relationship between training effectiveness and employee performance within the telecommunications sector in Jalalabad City, Nangarhar Province, Afghanistan. A quantitative, cross-sectional research design was employed. Due to the unavailability of precise data regarding the total number of employees across the five selected telecommunications companies, a purposive sampling method was used to select 50 employees for the study. Primary data were collected via a structured questionnaire from 50 employees of five telecommunications companies in Jalalabad City, Nangarhar Province, Afghanistan; these individuals were selected through purposive sampling and worked exclusively at the companies' central or main offices. Employees working at branch offices were not included in this study and analyzed using SPSS software. Statistical analyses included reliability analysis, descriptive statistics, Pearson correlation, and simple linear regression. The findings show that training effectiveness has a positive and statistically significant relationship with employee performance ($r = 0.606$, $p < 0.001$). Similarly, regression analysis confirms that training effectiveness significantly predicts employee performance ($\beta = 0.606$, $p < 0.001$), explaining 36.8% of the variance in employee performance. The findings shows that employees reporting higher training effectiveness also tend to have higher levels of employees work performance. This study provides evidence specific to the telecommunications sector in Jalalabad, which may assist managers and human resource professionals in better understanding the relationship between training effectiveness and employee performance. The findings could prove useful for planning and evaluating employee training programs. Nevertheless, the study's cross-sectional design, reliance on employee self-reported data, and small, purposive sample of 50 employees limit the ability to interpret the results causally or generalize them to other employees. Future research could provide more robust evidence regarding this relationship by utilizing larger, more representative samples, as well as longitudinal or experimental research designs.

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Introduction

Employees are considered a vital resource for an organization because their knowledge, skills, and work performance play a direct role in organizational effectiveness and the achievement of organizational goals (Robbins & Judge, 2017). In service-oriented industries particularly the telecommunications sector employee

performance is crucial, as employees provide technical support, interact with customers, resolve service-related issues, and contribute to maintaining service quality. Consequently, enhancing employee performance is a key priority for telecommunications companies.

Training is a human resource management practice aimed at enhancing employees' job-related knowledge, skills, and capabilities. Noe (2017) notes that training helps

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employees acquire the competencies necessary for effective job performance and the attainment of organizational goals. Similarly, [Adil et al. \(2021\)](#) emphasizes the importance of training in equipping employees with the knowledge and skills required to perform their duties effectively and productively. Effective training enables employees to adapt to technological changes, improve communication and problem-solving skills, reduce work-related errors, and enhance their overall performance. However, the impact of training on employee performance may depend on the relevance and quality of the training, as well as its application in practical work.

Previous studies have examined the relationship between training and employee performance across various organizational settings. For instance, [Adil et al. \(2021\)](#) investigated training and development practices among employees of selected non-governmental organizations in Jalalabad City, Afghanistan, highlighting the importance of these practices for employee performance. Similarly, [Noorzad and Joseph \(2025\)](#) studied the impact of training and development on employee performance within Afghanistan's telecommunications sector, reporting a positive relationship between these factors. Although these studies provide relevant evidence, further research is needed to better understand this relationship specifically among employees at the headquarters and main offices of telecommunications companies in Jalalabad City.

The telecommunications sector in Jalalabad City comprises five major companies: Etisalat, Salaam, Roshan, Atoma, and Afghan Wireless. These companies operate in a service-oriented environment where employees must possess appropriate technical knowledge, effective communication skills, and the ability to adapt to evolving customer needs and technological advancements. While research regarding training and employee performance has been conducted in Afghanistan, the specific relationship between training and performance among employees at the headquarters and main offices of the five aforementioned telecommunications companies in Jalalabad City still warrants further empirical study. In particular, there is a need for evidence demonstrating whether training has a significant impact on employee performance and the extent to which variations in performance can be predicted based on training.

To address this research gap, the present study examines the impact of training on employee performance within the telecommunications sector of Jalalabad City, Afghanistan. A quantitative research approach was employed, and data were collected via questionnaires from

50 employees at the headquarters and main offices of these telecommunications companies, selected through purposive sampling. Pearson correlation analysis is used to determine the relationship between training and employee performance, whereas simple linear regression analysis is employed to assess the predictive impact of training on employee performance.

The findings of this study are expected to assist telecommunications companies in Jalalabad City in evaluating their training practices and identifying suitable opportunities to enhance employee performance. Furthermore, this research may contribute to enriching existing academic literature by providing specific, context-specific evidence regarding training and employee performance within Afghanistan's telecommunications sector.

Problem Statement

Telecommunications companies in Jalalabad, Afghanistan, operate in a business environment that is rapidly evolving due to technological advancements, rising customer expectations, and increasing market competition. These changes require employees to continuously update their knowledge and skills to perform their duties effectively. Training is a key human resource management practice that helps enhance employee capabilities; however, its impact on employee performance may vary depending on the relevance and effectiveness of the training programs.

Although previous studies have examined the relationship between training and employee performance across various organizational settings, there is limited empirical research on this relationship within the telecommunications sector in Jalalabad, Afghanistan. Specifically, there is a need to determine whether there is a significant link between training and employee performance and to what extent training can predict performance in this specific context.

Therefore, this study investigates the impact of training on employee performance within the telecommunications sector of Jalalabad, Afghanistan. By analyzing data collected from employees of five telecommunications companies, this study aims to provide empirical evidence that assists managers and human resource professionals in evaluating training practices and formulating appropriate strategies to enhance employee performance and organizational effectiveness.

Research Question

What is the impact of training on employee performance in the telecommunications sector of Jalalabad?

Research Objective

To examine the impact of training on employee performance in the telecommunications sector of Jalalabad.

Research Hypothesis

H1. (Alternative hypothesis):

There is a positive and statistically significant relationship between training effectiveness and employee work performance in the telecommunications sector of Jalalabad City, Afghanistan.

N0. (Null Hypothesis):

There is no statistically significant relationship between training effectiveness and employee work performance in the telecommunications sector of Jalalabad City, Afghanistan.

Scope of the Study

This study focuses on five telecommunications companies operating in Jalalabad City, Nangarhar Province, Afghanistan: Etisalat, Roshan, AWCC (Afghan Wireless), Salaam, and Atoma. Data was collected via a structured questionnaire from 50 employees selected through purposive sampling who worked exclusively at the companies' central or headquarters offices.

The study examines the relationship between training effectiveness and employee performance among staff at the headquarters of these telecommunications companies in Jalalabad. Since the study includes only headquarters staff, the findings may not be generalizable to employees at branch offices or to the telecommunications workforce across Afghanistan as a whole.

Literature Review

Effectiveness of Training and Employee Performance

Employee training is a key human resource management practice that strengthens employees' knowledge, skills, and abilities, thereby enhancing their work performance and productivity. From the perspective of human capital theory, training is viewed as an investment in employee capabilities that contributes to improved performance for both individuals and the organization (Becker, 1993). However, the benefits of training are not automatic; they

depend on the quality and relevance of the training, employee characteristics, and the extent to which the acquired knowledge is applied in the work environment. Effective training helps employees adapt to technological changes, reduce work-related errors, and perform their duties efficiently and effectively (Noe, 2017). Therefore, the effectiveness of training should be evaluated based on its impact on actual employee performance, rather than merely on the existence of training programs.

Previous empirical studies generally support the existence of a positive relationship between training and employee performance, though these studies have highlighted a variety of outcomes and contextual factors. De Grip and Sauermann (2013) examined the impact of training on employee performance and productivity, highlighting the importance of skill development and work effectiveness. Their findings indicate that the benefits of training depend, to some extent, on how effectively employees apply the skills they have acquired. Similarly, Colombo and Stanca (2008) identified training as a key factor in enhancing productivity, though they noted that its impact can vary across different organizational environments. Overall, these studies suggest that while training can improve employee outcomes, its effectiveness is contingent upon organizational conditions and the manner in which the learned skills are put into practice.

Evidence from various service sectors also supports the existence of a positive relationship between training and work performance. Sal (2016) investigated the impact of training and development within private transport companies in Jordan and found a positive correlation between training and employees' work performance and productivity. In Afghanistan, Adel et al. (2021) examined training and development practices among NGO staff in Jalalabad and reported that these practices contributed to improvements in employee work performance and productivity. While these studies provide evidence from various organizational and geographical contexts, their findings cannot be directly generalized to telecommunications companies, as employee responsibilities, operational requirements, and organizational practices vary across sectors. Furthermore, the differences in research settings and outcomes necessitate an examination of the relationship between training and work performance within the specific context of the current study.

Although previous research in Afghanistan and Jalalabad—including studies within the NGO sector has explored the link between training and employee performance outcomes, the aforementioned studies did

not directly address this relationship among employees working in the central and head offices of the five telecommunications companies selected for the present study. Therefore, the contribution of the current study lies not in claiming that the general relationship between training and job performance has never been investigated before, but rather in providing empirical evidence regarding a specific organizational and geographical context. This study utilizes data collected via questionnaires from 50 employees selected through purposive sampling at the headquarters and main offices of telecommunications companies (Etisalat, Roshan, Afghan Wireless (AWCC), Salaam, and Atoma) in Jalalabad, Afghanistan. Pearson correlation analysis and simple linear regression are employed to determine the relationship between training and employee job performance.

Training in the Telecommunications Sector

The telecommunications sector in the world and in Afghanistan operates in a rapidly changing technological environment in which employees need to continuously develop their knowledge and skills. Due to technological innovation, increasing customer expectations, and competitive market conditions, telecommunications companies must continuously enhance the knowledge, skills, and competencies of their employees through effective training programs. Similarly, employees working in technical, customer service, and administrative positions need new and up-to-date knowledge, skills, and competencies to maintain the quality of their services and organizational competitiveness.

Research conducted in the Afghan telecommunications sector provides strong evidence of the impact of training on employee performance. [Ahmadi \(2019\)](#) conducted a study in Afghan telecommunications companies, and the results showed that training programs have a positive impact on employee performance by improving technical skills, reducing operational problems, and increasing resource utilization. Similarly, [Noorzad and Joseph \(2025\)](#) studied training and employee performance in the Afghan telecommunications sector, and their findings showed that organizing and conducting continuous training programs for employees greatly contributes to improving employee productivity and performance.

International research also supports these findings. [Kanatipelli and Azam \(2020\)](#) examined telecommunications companies in Malaysia and found that employee-training programs increased job

performance and job satisfaction. Similarly, [Mohamud et al. \(2023\)](#) conducted a study that found that training and development had a significant positive impact on employee performance in telecommunications companies in Somalia. This study suggests that although telecommunications sectors in different countries operate in different organizational environments, employee training remains a common factor that has a significant positive impact on employee productivity and performance.

Comparative analysis of previous studies

Previous research findings have shown that training has positive effects on employee productivity and performance, with research findings varying depending on the type of research, methodology, sample size, and organizational environment. For example, [De Grip and Sauermann \(2013\)](#) studied training from an economic perspective and focused on productivity outcomes in general, while studies such as [Ahmadi \(2019\)](#), [Noorzad, and Joseph \(2025\)](#) focused specifically on employee performance in the Afghan telecommunications sector.

Similarly, [Afsana et al. \(2015\)](#) found that training in the Bangladeshi telecommunications sector improved performance by enhancing employees' job knowledge, skills, and positive work attitudes. However, [Khan et al. \(2016\)](#) suggested that training also affects employee performance individually by increasing job satisfaction. It also highlights that training may not only directly affect employee productivity and performance but may also work through psychological and organizational mechanisms.

Similarly, some studies have focused on developed or relatively stable business environments, such as Malaysia and Italy ([Colombo & Stanca, 2008](#); [Kanatipillai & Azam, 2020](#)), while there has been little research on the effectiveness of training in Afghanistan. This discrepancy highlights the importance of conducting context-specific research, as organizational practices, employee characteristics, and institutional conditions may influence the effectiveness of training programs.

This study is based on human capital theory, which was initially developed by Becker and further expanded in his later work ([Becker, 1993](#)). This theory proposes that employees represent valuable organizational assets, with the help of which investment in employees' knowledge, skills, abilities, and capabilities increases the productive capacity of employees. According to this theory, training is considered an investment that increases the human capital of employees, enabling employees to perform their jobs

effectively and efficiently and helping to improve organizational goals.

These theories suggest that employees who receive appropriate and effective training develop better technical skills, problem-solving abilities, and job-related competencies, which in turn lead to higher productivity and performance. Training in organizational settings helps employees create new knowledge, adapt to technological changes, reduce work errors, and increase efficiency. Therefore, organizations that invest in employee development are more likely to achieve better employee productivity and sustainable competitive advantages (Becker, 1993; Noe, 2017).

In the context of the telecommunications sector, where technological advancements and changing customer demands require continuous improvement of employee capabilities, human capital theory has provided a strong explanation for the relationship between training effectiveness and employee productivity. With the help of effective training programs, employees can improve their capabilities and apply the knowledge, skills, and abilities acquired through training in the workplace, which in turn improves job performance and productivity. Based on this theoretical perspective, this study hypothesizes that high levels of training effectiveness have a positive contribution to employee productivity.

Previous studies have widely studied the relationship between employee training and performance outcomes across a variety of organizational sectors and geographical contexts. For example, studies conducted in Jordan, Italy, Pakistan, Bangladesh, Malaysia, Somalia, and Uganda have consistently reported that training enhances employee knowledge, skills, job performance, and productivity (Colombo & Stanca, 2008; De Grip & Sauermann, 2013; Sal, 2016; Afsana et al., 2015; Khan et al., 2016; Kanapathipillai & Azam, 2020; Mohamud et al., 2023).

Similarly, studies conducted in Afghanistan have mainly focused on the general impact of training and development on employee performance across various sectors, including non-governmental organizations and telecommunications organizations (Ahmadi, 2019; Adil et al., 2021; Noorzad & Joseph, 2025).

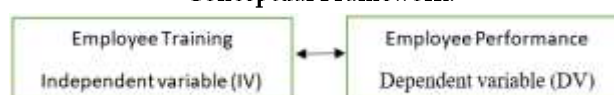
Similarly, many gaps remain in the existing literature. First, previous studies have studied training and employee performance as broad concepts, with limited attention paid to training effectiveness. Second, although previous studies have examined training practices in telecommunications companies in various countries, there

has been limited research on the effectiveness of training programs in Afghanistan, particularly in Jalalabad. Third, most of the existing research has been conducted in different organizational settings, which limits its applicability to the Afghan context.

Telecommunications companies in Afghanistan operate in diverse environments characterized by rapid technological advancement, changing customer expectations, resource constraints, and high levels of competition in the market. However, it is recognized that employee-training programs effectively increase productivity and are important for improving organizational performance. Despite the strategic importance of skilled employees in this sector, limited research has examined the relationship between training effectiveness and employee productivity among telecommunications companies in Jalalabad.

Therefore, this study contributes to the existing human resource management literature by providing empirical evidence on the impact of training effectiveness on employee performance and productivity within the telecommunications sector in Jalalabad. While previous studies have generally focused on general employee performance, this study specifically examines how effective training contributes to employee productivity outcomes. The results of the study provide important information for managers and human resource professionals to design effective training strategies to improve employee knowledge, skills, and competencies and organizational effectiveness.

Conceptual Framework:



The conceptual framework of this study is based on Human Capital Theory. This theory posits that investing in employees through training can enhance their knowledge, skills, and abilities, thereby leading to improved employee performance (Becker, 1964). This study examines the relationship between training and employee performance within the telecommunications sector in Jalalabad City, Nangarhar Province, Afghanistan.

Training (Independent Variable): Training refers to planned educational activities aimed at enhancing employees' job-related knowledge, skills, and abilities. In this study, training is operationalized through six questionnaire items that measure employees' perceptions regarding training practices within their organizations.

Employee Performance (Dependent Variable):

Employee performance refers to the effectiveness with which employees carry out their assigned tasks and their contribution to achieving organizational goals. In this study, employee performance is operationalized through ten questionnaire items that assess the employees' work performance. Theoretical mechanism linking training and employee performance: According to human capital theory, training enables employees to acquire relevant knowledge, develop professional skills, and strengthen job-related competencies. These advancements assist employees in performing their duties effectively and contributing to the achievement of organizational goals. Consequently, this study hypothesizes a positive relationship between training and employee performance.

Based on this theoretical framework, training is designated as the independent variable, while employee performance is designated as the dependent variable. The relationship between these two variables is assessed using Pearson's Correlation Analysis and Simple Linear Regression Analysis. Data were collected via questionnaires from 50 employees—selected through purposive sampling—working at the headquarters and main branches of five telecommunications companies in Jalalabad City.

Research Methodology

Research Design

This study employs a quantitative, cross-sectional, correlational, and predictive survey design to examine the relationship between training and employee job performance within the telecommunications sector in Jalalabad, Nangarhar province. A quantitative approach was selected to gather numerical data via a structured questionnaire and to subject it to statistical analysis.

A cross-sectional design was utilized because data were collected from selected participants at a single point in time. The correlational component assesses the relationship between training and employee job performance using Pearson Correlation Analysis, while the predictive component employs Simple Linear Regression Analysis to determine the extent to which training can predict employee job performance.

The study included 50 employees selected through purposive sampling from the headquarters and main branches of five telecommunications companies: Roshan, Etisalat, Salaam, Atoma, and Afghan Wireless.

This design was appropriate for testing the research hypothesis and evaluating the statistical relationship

between the research variables. However, since a cross-sectional and non-experimental design was employed in this study, the findings reveal statistical associations and predictive relationships between the variables, rather than establishing a definitive causal effect between training and employee work performance.

Study Population

The target population for this study consisted of employees working in the headquarters and main branches of five telecommunications companies—Roshan, Etisalat, Salaam, AWCC (Afghan Wireless), and Afghan Wireless—in Jalalabad City, Nangarhar Province, Afghanistan. The exact total number of employees in these offices was unknown, as the companies did not provide comprehensive workforce figures; consequently, the precise size of the study population could not be determined.

A non-probability purposive sampling method was employed to select participants who possessed relevant knowledge and experience regarding employee training and work activities. Eligible participants were employees working in the selected headquarters or main branches who had relevant knowledge or experience concerning the study variables and were willing to participate voluntarily. Eligible employees were invited to take part, and 50 completed questionnaires were included in the final analysis.

The study sample comprised 50 employees, with 10 respondents selected from each of the five telecommunications companies. The aim of this equal distribution was to include employees from all five organizations in the study and to facilitate comparisons among the participating companies. However, since the total number of employees in the companies was unknown and a non-probability purposive sampling method was employed, this equal distribution is neither proportional to the size of each company's workforce nor does it guarantee statistical representativeness.

The sample size of 50 individuals was determined based on the practical accessibility of eligible employees and the feasibility of data collection from the five selected companies. Pearson correlation analysis and simple linear regression analysis were conducted on this sample to evaluate the relationship between training and employee job performance. Nevertheless, the relatively small sample size and its non-probability nature limit the generalizability of the research findings. Furthermore, as the total number of employees invited to participate was not recorded, the response rate could not be calculated.

These limitations should be taken into account when interpreting the research results.

Data Collection:

A structured questionnaire was used in this study to collect primary data regarding training and employee job performance. The questionnaire consisted of three sections: demographic information, training, and employee job performance. The measurement items were designed to assess the study's independent and dependent variables.

The first section gathered the respondents' personal and professional information. In the second section, training was measured through six questions that assessed employees' views on training within the organization and its alignment with job requirements. The third section measured employee job performance using ten questions regarding the employees' assessment of their own execution of assigned tasks.

A five-point Likert scale was used for all questionnaire items, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The questionnaires were distributed directly to employees at selected headquarters and main branches of five telecommunications companies in Jalalabad, Afghanistan. The completed questionnaires were then collected for statistical analysis. To enhance the methodological transparency and replicability of the research, it is essential to clearly document the sources of the questions, any modifications made to the original questions, the language of the questionnaire, and the procedures for assessing validity and reliability. The original sources and exact wording of the questions should be presented in an appendix or supplementary table. Furthermore, the procedures regarding questionnaire translation, back-translation, and pilot testing must be described based on the actual steps taken in the study.

Data Analysis Techniques

Data analysis was conducted using SPSS software. Descriptive statistics—including frequency, percentage, mean, and standard deviation—were used to summarize the respondents' demographic characteristics and the research variables. Cronbach's alpha analysis was performed to assess the internal consistency of the questionnaire items. Pearson's correlation analysis was employed to determine the relationship between training and employee performance. Additionally, simple linear regression analysis was conducted to ascertain whether

training serves as a statistically significant predictor of employee performance.

The questionnaire comprised two variables: training, measured by six items, and employee performance, measured by ten items. The questionnaire items were developed or adapted based on prior relevant research concerning training and employee performance.

Instrument Validity and Reliability

The reliability of the measurement instrument was assessed using Cronbach's alpha. As shown in Table 2, the Training Scale, comprising six items, yielded a Cronbach's alpha coefficient of 0.821, while the Employee Performance Scale, comprising ten items, yielded a coefficient of 0.867. Both values exceed the established threshold of 0.70, indicating acceptable internal consistency among the items of both scales ([Hair et al., 2019](#)).

The questionnaire items were adapted from existing scales regarding human resource management and employee performance and were contextualized to the telecommunications sector in Jalalabad City, Nangarhar Province, Afghanistan. Prior to data collection, the items were evaluated for relevance, clarity, and appropriateness, and were revised where necessary. Construct validity was not statistically tested in this study.

Results

The chapter presents findings on how training impacts employee performance in Jalalabad city's telecommunications sector. Data from 50 participants were analyzed using SPSS. The section begins with demographic details, followed by a reliability check and descriptive statistics of main variables. Pearson correlation assessed relationships between training and performance. Finally, linear regression examined training's predictive effect. Results are detailed in subsequent sections

Demographic characteristics of respondents:

Demographic data include gender, age, marital status, education level, company affiliation, tenure, and job position. These details provide context for interpreting study outcomes. The demographic results are summarized in Table 1.

Table 01: Demographic characteristics of respondents			
		Count	Column N %
Gender of Respondents	Male	48	96.0%
	Female	2	4.0%
Age of Respondents	20 -25 Years	2	4.0%
	26 - 30 Years	15	30.0%
	31 - 35 Years	13	26.0%
	36 - 40 Years	14	28.0%
	Above 40 Years	6	12.0%
Marital Status of Respondents	Single	4	8.0%
	Married	46	92.0%
Education Background of Respondents	Intermediate	0	0.0%
	Bachelor's Degree	42	84.0%
	Master's Degree	8	16.0%
	MS/M.Phil.	0	0.0%
Company Name	Afghan Wireless	10	20.0%
	Roshan	10	20.0%
	Salaam Network	10	20.0%
	ATOMA	10	20.0%
	Etisalat	10	20.0%
Duration of Employment with the Current Company	Less than One Year	1	2.0%
	1 - 3 Years	9	18.0%
	3 - 5 Years	9	18.0%
	More than 5 Years	31	62.0%
Job Position of Respondents	Sales & Marketing Manager	10	20.0%
	Customer Care Agent	10	20.0%
	Finance Manager	1	2.0%
	Technical Engineer	3	6.0%
	Other	26	52.0%

Table 1 presents the demographic details of the 50 respondents involved in this study. Most respondents were male, making up 96%, with females comprising 4%.

The majority were aged between 26 and 40 years, with 30% aged 26–30, 26% aged 31–35, and 28% aged 36–40.

Regarding marital status, 92% were married. In terms of education, 84% held a bachelor's degree, while 16% had a master's degree.

Participants were evenly distributed across five telecommunications companies, each representing 20% of the sample.

Regarding tenure, 62% had over five years of experience at their current company.

In job positions, 52% were categorized as "other," with the rest in sales and marketing management, customer service, financial management, and technical engineering.

Overall, the demographic profile indicates a diverse sample in age, education, experience, and job roles, selected from major telecommunications firms in Jalalabad city.

Reliability Analysis

This section presents a reliability analysis to evaluate the consistency of the questionnaire questions.

Cronbach's Alpha was employed to determine the reliability of the questions measuring the independent variable, Training, and the dependent variable, Employee Performance. The findings are summarized in the table below.

Table 02. Reliability Statistics		
Variable	Cronbach's Alpha	N of Items
Training	.821	6
Employee Performance	.867	10

Table 2 shows that the Cronbach's alpha coefficient is 0.821 for the Training Scale (comprising 6 items) and 0.867 for the Employee Performance Scale (comprising 10 items). Both values exceed the recommended threshold of 0.70, indicating acceptable internal consistency among the items of both scales. However, these results alone are insufficient to establish construct validity.

Descriptive Statistics

Descriptive statistics were used to summarize the general opinions of the respondents regarding the main variables of the study. The mean and standard deviation were calculated for training and employee performance to reveal the respondents' general perspectives on these variables. The results are presented in the table below.

Table 03. Descriptive Statistics of the Study Variables			
	N	Mean	Std. Deviation
Training	50	4.5100	.47905
Employee Performance	50	4.3640	.51061

The results in Table 3 show that the mean score for training was 4.51 (SD = 0.48), while the mean score for employee job performance was 4.36 (SD = 0.51). These high mean scores indicate that respondents generally held a positive view regarding the training and employee job performance. The relatively low standard deviations suggest limited variation in responses within the sample. However, these high mean scores may point to the potential presence of a "ceiling effect," a factor that should be considered when interpreting the results. These

descriptive results alone cannot prove that training directly improves employee job performance.

Correlation Analysis

Pearson Correlation Analysis was conducted to examine the relationship between training and employee performance. The primary purpose of this analysis was to determine the direction, strength, and statistical significance of the relationship between these two variables. The results are presented in the table below.

Table 04. Pearson Correlations			
		Training	Employee Performance
Training	Pearson Correlation	1	.606**
	Sig. (2-tailed)		.000
	N	50	50
Employee Performance	Pearson Correlation	.606**	1
	Sig. (2-tailed)	.000	
	N	50	50
**. Correlation is significant at the 0.01 level (2-tailed).			

Table 4 presents the results of the Pearson correlation analysis evaluating the relationship between training and employee job performance. The results indicate a positive and statistically significant relationship ranging from moderate to strong between the two variables ($r = .606$, $p < .001$). This suggests that higher levels of training among respondents are associated with higher levels of employee job performance. However, correlation does not establish a cause-and-effect relationship; therefore, these results should be interpreted as evidence of an association between training and job performance, rather than proof that training directly causes improvements in employee performance.

Regression Analysis

A simple linear regression analysis was conducted to evaluate the effect of training on employee performance. In this model, training was designated as the independent variable, while employee performance served as the dependent variable. The regression analysis evaluated the Model Summary, ANOVA, and Regression Coefficients to

assess the proposed model's explanatory power, overall statistical significance, and predictive effects.

Table 05. Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.606 ^a	.368	.355	.41023
a. Predictors: (Constant), Training				

Table 5 presents the regression analysis model summary. The results indicate a positive relationship between training and employee job performance ($R = 0.606$). The coefficient of determination ($R^2 = 0.368$) reveals that the regression model explains 36.8 percent of the observed variation in employee job performance within the research sample. The remaining 63.2 percent of the variation is not explained by the model and may be attributed to other factors or random fluctuations not included in the model. However, these results do not prove that training itself is the direct cause of the 36.8 percent variation in employee job performance.

Table 06. ANOVA						
Model		Sum of Squares	D.F.	Mean Square	F	Sig.
1	Regression	4.698	1	4.698	27.914	.000 ^b
	Residual	8.078	48	.168		
	Total	12.775	49			
a. Dependent Variable: Employee Performance						
b. Predictors: (Constant), Training						

Table 6 presents the results of the ANOVA analysis for the regression model. The results indicate that the regression model is statistically significant ($F = 27.914$, $p < 0.001$). This demonstrates that the model represents a statistically significant improvement over a model containing only the intercept. Together with the coefficient of determination ($R^2 = 0.368$), the findings show that the model explains 36.8 percent of the observed variance in employee job performance within the study sample. These results support the hypothesis that training is statistically significantly associated with employee job performance; however, they do not establish a cause-and-

effect relationship. Furthermore, the statistical assumptions of the regression must be evaluated and reported. These assumptions include linearity, independence of observations, homoscedasticity (constant variance of residuals), normality of residuals, and the presence of influential observations or outliers.

Table 07. Regression Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.449	.555		2.612	.02
	Training	.646	.122	.606	5.283	.000
a. Dependent Variable: Employee Performance						

Table 7 presents the regression coefficients for the relationship between training and employee performance. The results indicate that training is a positive and statistically significant predictor of employee performance ($B = 0.646$, $\beta = 0.606$, $t = 5.283$, $p < 0.001$). The unstandardized coefficient ($B = 0.646$) indicates that a one-unit increase in the training score is associated with an expected 0.646-unit increase in the employee performance score within the fitted model. Similarly, the standardized coefficient ($\beta = 0.606$, $p < 0.001$) indicates a positive predictive relationship between the two variables. The statistically significant t-value and p-value provide evidence of a significant association between training and employee performance in the study sample. Therefore, the research hypothesis stating that “**Training is positively and significantly associated with employee performance**” is supported by the regression results. However, these findings do not establish a causal relationship between training and employee performance.

Discussion

The study titled “The Relationship between Training and Employee Performance in Jalalabad City, Nangarhar Province” examines the link between training and employee performance within the telecommunications sector. The findings indicate a positive and statistically significant relationship between training and employee

performance. Regression results reveal that the model explains 36.8 percent of the observed variance in employee performance within the study sample $((R^2 = 0.368))$. These findings support the research hypothesis that training is positively and statistically significantly associated with employee performance. However, due to the study's cross-sectional design and purposive sampling method, the results should be interpreted as evidence of an association rather than a cause-and-effect relationship. Furthermore, the findings are limited to 50 employees purposively selected from the headquarters and main offices of five telecommunications companies in Jalalabad City.

The positive relationship observed in this study may be explained, at least in part, by mechanisms identified in previous academic research. For instance, effective training can help employees strengthen their technical capabilities, job-related knowledge, self-confidence, and problem-solving skills—attributes that can support improved job performance. In the telecommunications sector, where employees must adapt to technological changes, evolving customer demands, and operational challenges, relevant and continuous training can assist them in updating their knowledge and effectively performing their assigned tasks. However, these mechanisms were not directly evaluated in the current study; therefore, they should be viewed as potential explanations for the observed association rather than as established findings of this research. Other organizational factors such as leadership support, employee motivation, compensation and benefits systems, organizational culture, job satisfaction, and the work environment may also be linked to employee job performance.

The findings of this study largely align with those of [Noorzad and Joseph \(2025\)](#). They examined training and professional development within Afghanistan's telecommunications sector and reported a positive correlation between training and employee performance. This similarity may stem from the comparable national and sectoral contexts of both studies, as technological advancements and competitive market conditions can heighten the importance of employee training. However, differences in sample characteristics, organizational policies, training quality, and measurement methods could influence the strength and nature of the relationship observed in the studies. Therefore, any comparison of the findings must take these contextual and methodological differences into account.

The findings of the current study also align with those of [Adil et al. \(2021\)](#), who reported a positive link

between training and professional development practices and employee performance within non-governmental organizations in Jalalabad. Although the two studies were conducted in different organizational environments, both indicate that employee professional development practices may be associated with improved performance. However, due to sectoral differences between telecommunications companies and non-governmental organizations, the results of one study cannot automatically be generalized to another sector. Further research is required to determine whether similar relationships exist within other organizations and sectors in Afghanistan.

At an international level, the findings of this study can be compared with research conducted in other telecommunications environments. Mohamed et al. (2023) reported a positive correlation between training and employee performance in Somali telecommunications companies. Similarly, [Odhiambo et al. \(2024\)](#) identified significant relationships between various aspects of training and employee outcomes in the Kenyan telecommunications industry. These studies provide comparative evidence that generally aligns with the relationship observed in the Jalalabad study. Nevertheless, differences in national contexts, organizational structures, employee characteristics, research designs, and measurement methods may influence the comparability of the results. Therefore, existing findings indicate that training can be relevant to employee performance across various environments; however, this does not prove that training yields the same impact in all organizations or that this relationship manifests identically in every organization.

The findings of this study hold practical significance for managers and human resource specialists within the telecommunications sector. Organizations can benefit from assessing employee training needs, developing job-specific training programs, evaluating post-training outcomes, and providing opportunities for employees to apply newly acquired skills. Such measures may help enhance employee competencies and support service quality and operational efficiency. However, the effectiveness of these practices should be evaluated individually for each organization rather than assumed to be uniform across all companies.

Overall, this study provides empirical evidence regarding the relationship between training and employee performance in the telecommunications sector of Jalalabad, Afghanistan, thereby contributing to the body of existing academic research. The findings indicate that training is a statistically significant predictor of employees'

work performance within the selected regression model, and the model accounts for the observed outcome in the research sample.

Conclusion

This study examined the relationship between training and employee performance across five telecommunications companies in Jalalabad, Afghanistan (Roshan, Etisalat, Salaam, Atoma, and Afghan Wireless). The findings revealed a positive and statistically significant relationship between training and employee performance ($r = 0.606$, $p < 0.001$). This indicates that, within the study sample, employees who reported higher levels of training generally reported higher levels of job performance.

Simple linear regression analysis further demonstrated that training is a statistically significant predictor of employee performance ($R^2 = 0.368$, $p < 0.001$). The regression model explains 36.8 percent of the observed variance in employee performance within the study sample. Consequently, the alternative hypothesis (H_1) which predicted a positive relationship between training and employee performance was supported by the findings, whereas the null hypothesis (H_0) was not supported by the established statistical model. However, since this study examined the relationship between the two variables, the findings do not in themselves prove that training directly causes improvements in employee performance.

The remaining 63.2 percent of the variation in employee performance is not explained by the regression model. This indicates that other factors such as management practices, employee motivation, the work environment, benefits and salaries, leadership, available resources, and organizational policies may also be significant for employee performance; however, the contribution of these factors was not directly investigated in this study.

Based on the study's findings, telecommunications companies in Jalalabad, Nangarhar province, could implement systematic, well-planned, and job-specific training programs tailored to employee roles and organizational needs. These programs could focus on practical skills, technical knowledge, and adapting employees to changes in technology and work processes. Companies should also pay attention to other organizational factors that may influence employee performance. Future research employing large and diverse samples, additional explanatory variables, and longitudinal or other appropriate research designs could

provide further insight into the relationship between training and employee performance.

In conclusion, this study presents evidence of a positive and statistically significant relationship between training and job performance among the surveyed employees of five telecommunications companies in Jalalabad city. While the findings are valuable for the companies studied, the generalization of these results to other employees, companies, and sectors should be approached with caution, given the sampling methods and geographical limitations.

Research Limitations

1. Lack of precise data on the total population:

The exact number of employees across the five selected telecommunications companies was unknown to the researcher; consequently, it is difficult to accurately assess how well the sample represents the entire population.

2. Geographical scope:

The study was conducted solely among employees at the headquarters and main branches of the selected telecommunications companies in Jalalabad. Therefore, the findings may not fully reflect the experiences of employees in other branches or regions.

3. Limited sample size and equal distribution:

Fifty individuals participated in the study, with ten selected from each company. The small sample size and the equal distribution—without regard for the actual number of employees in each company may limit the representativeness of the findings and the ability to generalize them.

4. Non-probability sampling method:

Purposive sampling was used in the study rather than random sampling. This method may introduce selection bias and limit the statistical generalizability of the findings to other employees in the telecommunications sector.

5. Use of self-reported data:

The study relied on employee responses to a questionnaire, which may be subject to personal opinions and response bias. Furthermore, employees' work performance was not independently assessed through objective records.

Recommendation

Based on the findings of this study, the following recommendations are proposed:

1. Telecommunication companies should implement continuous and need-based training programs to enhance employees' knowledge, skills, and productivity.
2. Organizations should regularly assess training needs and evaluate training outcomes to ensure that training programs effectively address employees' job requirements and improve workplace performance.
3. Managers and HR practitioners should integrate training with broader human resource development practices, including employee motivation, performance management, and supportive work environments.
4. Companies should focus on both technical and soft skills development to improve employees' adaptability, problem-solving abilities, and service quality in a rapidly changing telecommunication environment.
5. Future researchers should explore additional factors influencing employee productivity and conduct studies with larger samples and diverse organizational contexts.

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