

## **An Assessment of the Impact of Training and Development on Employee Performance: Evidence from Afghanistan Food and Drug Authority (AFDA)**

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### **Abstract**

This study assesses the impact of training and development on employee performance based on the evidence from the Afghanistan Food and Drug Authority (AFDA). Employee performance is widely recognized as a critical determinant of organizational effectiveness and long-term success. In an increasingly dynamic and competitive environment, organizations rely on competent and high-performing employees to achieve strategic objectives, improve service quality, and maintain operational efficiency. As a result, organizations continuously invest in human resource development practices, particularly training and development, to enhance employees' knowledge, skills, abilities, and professional competencies. Training primarily focuses on improving employees' current job-related knowledge and skills, whereas development emphasizes long-term professional growth, career advancement, and employee empowerment. Using a quantitative research approach, data were collected through a structured questionnaire from employees across various departments. Evaluation of structural path were employed to assess the direct and indirect effects of training and development on employee performance. The findings revealed that training ( $\beta = 0.231$ ,  $t = 3.28$ ,  $P < 0.001$ ) and development ( $\beta = 0.399$ ,  $t = 5.197$ ,  $P < 0.001$ ) each had a significant positive effect on employee performance. Further, the structural model demonstrated moderate explanatory power, with an  $R^2$  value of 0.336, indicating that training and development explained 33.6% of the variance in employee Performance. Furthermore, the  $Q^2$  value of 0.312 confirmed that the model possesses adequate predictive relevance and satisfactory predictive capability. These findings suggest that training and development enhance employee performance by improving employees' knowledge, skills, and competencies while fostering professional growth through delegation of authority, participation in decision-making, and career management. The study highlights the importance of effective training and development initiatives in enhancing employee performance within the AFDA, and recommends future research to examine additional factors affecting employee performance as well as other employee performance dimensions.

**Keywords:** *Training; Development; Employee Performance; Afghanistan Food and Drug Authority (AFDA)*

## INTRODUCTION

Employee performance is widely recognized as a critical determinant of organizational effectiveness and long-term success. In an increasingly dynamic and competitive environment, organizations rely on competent and high-performing employees to achieve strategic objectives, improve service quality, and maintain operational efficiency. Therefore, learning is a fundamental aspect of human development and a prerequisite for effective performance. Throughout life, individuals continuously acquire knowledge, skills, and abilities that enable them to adapt to changing circumstances and perform tasks efficiently. In organizational settings, learning begins when employees join an organization and continues throughout their careers. Through orientation, training, and workplace experience, employees become familiar with organizational procedures, policies, and responsibilities while developing the competencies required to perform their duties effectively. However, knowledge alone is insufficient for high performance. Employees must also develop technical, conceptual, interpersonal, communication, and problem-solving skills to apply their knowledge in practical situations and respond to workplace challenges. The importance of continuous learning and skill development is highlighted by Human Capital Theory, which argues that investments in training and development enhance employees' knowledge, skills, and capabilities, leading to improved productivity and performance. Therefore, training primarily focuses on improving employees' current job-related knowledge and skills, whereas development emphasizes long-term professional growth, career advancement, and employee empowerment. Previous studies have consistently reported that effective training and development initiatives contribute to higher levels of employee performance, increased productivity, improved job satisfaction, and stronger organizational commitment. Consequently, organizations increasingly view investments in employee training and development as strategic tools for achieving organizational goals and sustaining competitive advantage.

In 2026, an authorized committee was appointed to conduct an initial evaluation of employees within the AFDA, which utilized predefined criteria and a structured assessment checklist. The instrument was designed to capture data across five key functional domains and was administered to a sample of 236 staff representing various hierarchical levels within the organization. The analysis of the collected data revealed notable deficiencies and significant gaps in the employees' foundational management competencies. These skills and competencies are widely regarded as necessary for ensuring effective and efficient performance in the organization. It is important to emphasize that such skills and abilities fall within the domain of core managerial functions, and employees are generally expected to acquire them, either through formal training programs or informal learning processes from the moment they join the organization.

The identification of this gap raised a critical question regarding the effectiveness of training and development initiatives in the AFDA. Specifically, it raised the question of whether employee training programs, including induction, managerial, and job-specific training, have a measurable impact on performance. Since organizational effectiveness depends on workforce performance, sustainable organizational improvements require corresponding enhancements in employee performance. Therefore, investigating this relationship empirically became necessary. This position is further supported by the Economic Policy of the Islamic Emirate of Afghanistan, which emphasizes that professional organizations must provide timely, need-based services that enhance client welfare and satisfaction. Competent organizations promote growth and development, whereas weak institutions contribute to corruption, instability, social inequality, and public dissatisfaction, ultimately hindering national development. Despite Afghanistan's strategic location and abundant natural resources, the country has experienced limited social and economic progress over recent decades, largely due to weak governmental institutions. Recognizing this challenge, the Islamic Emirate of Afghanistan introduced reform and capacity-building initiatives after assuming power and has continued to improve them. However, achieving sustainable economic development and social welfare requires the implementation of specialized long-term policies. Accordingly, the government's vision emphasizes employee training and

development, strengthening anti-corruption institutions, and improving resource allocation to deliver more effective and professional services (Deputy PM for Economic Affairs Office, 2025, p. 7).

Accordingly, the present study aims to further examine and validate the patterns identified in the preliminary data collected by the appointed committee, assess the separate and collective impact of training and development on employee performance, and suggest strategies for enhancing training and development practices in the AFDA.

## ***Review of Literature***

### **Theoretical Background**

During the 1960s, many authors saw training as a means to improve job-related skills and knowledge so employees could perform their current roles effectively. Black (1961) defined training as the process of imparting job-related knowledge to employees, enabling them to carry out instructions smoothly, efficiently, and cooperatively. Becker (1962) defined training as an investment that increases employee productivity, and King (1964) defined training as a process that creates conditions in which employees learn knowledge, skills, or abilities (Somasundaram & Egan, 2004). Moreover, training is a method of organizational improvement that aims to generate positive changes by modifying staff abilities and attitudes (Bass & Vaughan, 1966). Training is a structured opportunity for participants to gain the relevant knowledge and skills (Lynton & Pareek, 1967). Training is the process of imparting tasks and skills and enhancing job proficiency. It involves developing and expanding qualities that are increasingly essential for satisfactory job performance (Bienvenu, 1969).

At first, training was not considered to create lasting changes in employee behavior. After 1970, however, many authors described training as a systematic process that helps employees learn and change their behavior. Campbell, Dunnette, Lawler, and Weich (1970) defined training as a planned learning process designed to produce permanent changes in employees' skills, knowledge, and attitudes. Laird (1978) defined training as an experience, a discipline, or a routine that helps people learn new, specific behaviors (Somasundaram & Egan, 2004). Holder (1985) defined training as a particular job-related process of learning to improve job performance (Somasundaram & Egan, 2004). More recently, Hassan et al. (2013) described training as an organized process designed to enhance employees' job performance. According to Armstrong (2020), training is a structured educational process designed to help employees acquire the knowledge and skills needed to perform specific responsibilities. This idea distinguishes training from broader developmental activities by highlighting its task-focused and short-term nature. Similarly, Dessler (2020) explains that training focuses on providing workers with the behavioral and technical skills necessary for immediate job performance, especially at the operational level. Therefore, effective staff training can reduce the gap between actual and desired performance (Brum, 2007; Bossche et al., 2010). According to Noe (2020), well-designed training programs play a vital role in enhancing employees' workplace skills and competencies, resulting in better job performance. In today's corporate contexts, training provides employees with job-specific skills while also connecting individual competencies with organizational goals (Salas et al., 2018). Unlike private enterprises, where financial motives are paramount, public organizations frequently prioritize compliance, service delivery, and institutional performance; consequently, training becomes an essential instrument for guaranteeing regulatory adherence and public responsibility (Aguinis & Kraiger, 2009). Within organizational research, training is recognized as a critical human resource practice that helps employees build skills, knowledge, and competencies, thereby enhancing performance and productivity (Kuruppu, Kavirathne, & Karunarathna, 2021).

In human resource development, training content refers to the knowledge, skills, and competencies included in a training program to help employees do their jobs better, and effective training depends on the nature, relevance, and structure of the content provided to employees (Noe, 2020). According to the

human capital approach, training content (skill development) is usually divided into general skills and specific skills. General skills are transferable and can be used in different jobs and organizations, while specific skills relate to certain tasks or processes within an organization (Becker, 1964). In addition, specific skills refer to job-specific skills that are essential for performance, as well as organization-specific norms and regulations that support effective organizational functioning (Chen 2005, cited in Cheng & Waldenberger 2013), and general skills are those that enhance employee employability (Baruch 2001, cited in Cheng & Waldenberger 2013). Beyond skill type, scholars emphasize the significance of content relevance. Training content that closely aligns with employees' job roles, organizational objectives, and current work practices is more likely to facilitate effective learning and the transfer of training to the workplace (Saks & Burke, 2012). In organizational learning, training content helps create, keep, and share knowledge within a company and incorporate this knowledge into employees' daily work, leading to ongoing learning and improved performance (Argote, 2013). Opatha (2009) defined training content as anything that is considered to be covered in a training program. Cheng & Waldenberger (2013) describe training content as work-related knowledge and skills that participants in training programs will acquire. Also, content relevance is defined as the degree to which training content fulfills trainees' career expectations (Kuruppu et al., 2021). Moreover, Cheng & Waldenberger (2013) include operational factors that impact training design, organization, and implementation. Prior research has identified trainer competency and support as important operational factors influencing learning and performance results (Noe, 2020; Salas et al., 2012). The duration and timing of training programs have an additional impact on knowledge retention and transfer (Saks & Burke, 2012). Additionally, methods of training, supervisory support, and the training environment are widely acknowledged as critical operational conditions that allow the application of learned skills in the workplace (Aguinis & Kraiger, 2009; Baldwin & Ford, 1988). The way that training is conducted affects how learners react and behave (Colquitt et al., 2000, as cited in Cheng & Waldenberger, 2013). Employees are better able to learn and retain the skills necessary for effective job performance when trainers provide clear guidance, prompt feedback, and ongoing support throughout training (Noe, 2020; Salas et al., 2012). Beyond just acquiring knowledge, trainer support facilitates the transfer of skills from training to the workplace, helping employees apply what they've learned and increasing productivity (Baldwin & Ford, 1988; Burke & Hutchins, 2007; Blume et al., 2009). According to Opatha (2009), trainers are individuals who deliver training to trainees. They should be experts in their field, with expertise gained through proper training, education, and experience (Opatha, 2009). Furthermore, trainers who offer motivational support and emotional encouragement help boost trainee confidence and engagement, leading to improved performance outcomes (Tannenbaum & Yukl, 1992; Blume et al., 2009). Opatha (2009) states that specific dates or hours of training sessions are referred to as the training duration. Past literature indicates that trainees expect a reasonable amount of time and sessions for training (Mumford et al., 1988, as cited in Cheng & Waldenberger, 2013).

Accordingly, development programs increase employees' knowledge and skills, which leads to better productivity and work quality (Becker, 1964; Aguinis & Kraiger, 2009). When employees feel the organization invests in their development, their motivation and engagement rise, which improves their work performance (Kuvaas & Dysvik, 2009). Development-oriented practices enable employees to acquire broader competencies and institutional knowledge, which support consistent and reliable performance over time (Swanson & Holton, 2001). From an organizational learning perspective, ongoing development supports knowledge sharing and learning, helping employees adapt to new organizational needs (Argote, 2013). Unlike training, which mainly addresses urgent job-related skill deficiencies, employee development focuses on enhancing employees' knowledge, abilities, and behavioral capacities over time (Noe, 2017). Employee development means that organizations make planned efforts to help employees gain new skills, knowledge, and abilities that go beyond their current jobs. This prepares them for future roles and career growth (Novriyanti, Humaira, Miranda, & Dalimunthe, 2024). Involving employees in decision-making, supporting their career management activities and delegation of authority foster empowerment, engagement, and improved performance (Al Tit, Al Ayed, Alhammadi, Hunitie, Alsarayreh, & Albassam, 2022). Researchers indicate that employee development not only benefits organizational success but also promotes employee growth by enhancing decision-making, responsibility,

and alignment with career aspirations (Al-Tit et al., 2022; Triantafyllidou, 2022). Delegation of authority means that managers systematically give employees responsibility and decision-making power. When done well, employees can act within set limits, which helps build their confidence, encourages accountability, and supports skill development (Al Tit et al., 2022). Participation in decision-making enables employees to shape work outcomes, policies, and operational strategies. This approach is associated with higher job satisfaction, motivation, and commitment, as employees who contribute to decisions feel valued and invested in organizational goals (Ogu, 2024; Triantafyllidou, 2022). Career management involves developing strategies and activities to align employees' career goals with the organization's offerings. When career management is well-structured, it provides individuals with a clear understanding of potential career paths, opportunities for advancement, and specific development options that support long-term growth. When taken together, these dimensions provide a more comprehensive understanding of employee development that extends beyond technical training to encompass involvement, empowerment, and strategic career support, all of which are theoretically and empirically linked to better employee performance. Therefore, training usually aims to teach the skills needed for daily operations quickly, while development focuses on long-term growth and career advancement (Noe, 2020).

Performance stands as a well-explored subject in the literature of organizational behavior and human resource development (Bommer et al., 1995; Lawler & Worley, 2006; Schiemann, 2009, as cited in Pradhan & Jena, 2017). When employees meet expectations and perform at a high level, they can be considered to have succeeded (Cole, 2002). Therefore, performance assessment and management are essential components of effective human resource management and represent highly sought-after developmental interventions within the human resource portfolio (Bateman & Snell, 2007; Fay & Luhrmann, 2004; Hellriegel et al., 2004, as cited in Pradhan & Jena, 2017). The efficiency and effectiveness with which an organization converts its resources into outputs that attain desired goals are referred to as organizational productivity (Robbins & Coulter, 2018; Griffin, 2019). Productivity via job performance in the workplace refers to how productively, efficiently, and effectively an individual performs their job obligations and responsibilities (Eshete, Debela, & Kebede, 2025). The term employee performance refers to a person's work achievements after putting in the necessary effort, and it is linked to meaningful work, engagement, and working with supportive colleagues or employers (Hellriegel et al., 1999; Karakas, 2010, as cited in Pradhan & Jena, 2017). In addition, behaviors or actions that contribute to the organization's goals and can be measured in terms of proficiency, adaptability, and adherence to organizational norms is known as employee performance (Koopmans et al., 2012). Therefore, employee performance is essential for completing assigned tasks effectively (Rammstedt & John, 2007; Sackett & Walmsley, 2014, as cited in Eshete et al., 2025). According to Elger (2016), performing entails carrying out several intricate tasks that combine knowledge and abilities to yield a desired outcome. Ultimately, Strong employee performance gives organizations a strategic advantage and is vital for success (Diamantidis & Chatzoglou, 2019; Rusu et al., 2016, as cited in Eshete et al., 2025). Employee performance is defined as observable and measurable behaviors exhibited by individuals in the workplace that align with organizational objectives (Campbell, 1990). Performance is distinct from outcomes, as outcomes may be affected by external factors, whereas performance emphasizes behaviors within the employee's control (Campbell et al., 1993). Performance is composed of behavioral components that capture both what employees achieve (task outcomes) and how they behave in the workplace (contextual contributions), rather than a single, unidimensional outcome (Borman & Motowidlo, 1997). Therefore, Pradhan and Jena (2017) developed a detailed and evidence-based model of employee performance. They argue that performance includes three main dimensions: task performance, contextual performance, and adaptive performance. Task performance is widely regarded as a fundamental dimension of employee performance. It includes behaviors directly related to the production of goods or services and the fulfillment of a job's technical core (Warner, 1994, as cited in Pradhan & Jena, 2017). Pradhan and Jena (2017) state that task performance involves the effective execution of assigned duties, achievement of work targets, and compliance with organizational procedures and standards, which are generally outlined in job descriptions and are subject to formal organizational evaluation. Task performance depends more

on cognitive ability and is mainly supported by three factors: task knowledge, task skill and task habits (Conway, 1999, as cited in Pradhan & Jena, 2017). Similarly, Koopmans et al. (2012) define task performance as behaviors that support the technical core of the organization and are essential for maintaining operational effectiveness. Hesketh and Neal (1999, as cited in Pradhan & Jena, 2017) describe that adaptive performance refers to an individual's ability to acclimate and support the job profile in a dynamic work context. Therefore, Adaptive Performance was excluded because the organization operates in a relatively structured work environment where employees perform standardized duties and established procedures. Even though task performance addresses core job responsibilities and adaptive performance reflects flexibility and learning, it does not fully capture how employees contribute to organizational effectiveness. This gap led many scholars to recognize contextual performance as a separate dimension. Contextual performance involves discretionary behaviors that support the social, psychological, and organizational environment in which task performance occurs (Borman & Motowidlo, 1997). According to Pradhan and Jena (2017), contextual performance is prosocial behavior that is demonstrated by employees in an organization that is expected of employees but not mentioned in the job description. Pradhan and Jena (2017) note that contextual performance enhances organizational functioning by promoting teamwork, trust, and a positive work climate, including behaviors such as helping colleagues, cooperating with supervisors, volunteering for extra tasks, and demonstrating commitment to organizational values. Podsakoff et al. (2000) state that these behaviors are related to organizational citizenship behavior and improve efficiency by reducing the need for formal controls and facilitating coordination among employees. Additionally, (Spector & Fox, 2005) distinguished the multidimensional framework of employee performance that includes counterproductive work behavior (CWB) as a negative dimension which is not the subject of the study.

Strategically, training and development is viewed as an investment in human capital. Becker's (1964) human capital theory posits that firms investing in employee training boost productivity and performance outcomes. This theoretical perspective provides strong reasons to examine training and development as predictors of employee performance, especially in public-sector organizations where efficiency and service delivery are vital. Therefore, human capital theory serves as the foundation for this study. According to human capital theory, training and development investments in staff members improve their knowledge and abilities, which boosts their performance (Becker, 1964).

### **Empirical Studies**

Empirical research demonstrates that training programs vary in their effectiveness. Variations in content quality, trainer support, instructional methods, and program duration can significantly influence performance outcomes (Goldstein & Ford, 2002; Saks & Belcourt, 2006). Continuous training is required to retain competence and effectiveness since public sector employees frequently deal with evolving rules, technological improvements, and higher stakeholder expectations (Aguinis & Kraiger, 2009). Furthermore, employee development initiatives such as mentoring, career planning, and experiential learning are associated with improved management capabilities and decision-making, particularly among middle-level employees with complex responsibilities (Garavan et al., 2012). Studies show that both general and specific skills help improve employee performance, but their impact can differ based on the organization and job needs (De Grip & Sauermann, 2012). Kulkarni (2013) emphasized that training facilitates the smooth functioning of work, thereby improving employees' quality of work life and contributing to organizational development. Training and development efforts are carried out to boost the organization by improving employee skills, supporting the achievement of organizational goals (Tahir et al., 2014).

Jiménez-Jiménez and Sanz-Valle (2011) conducted an empirical investigation into the relationship between organizational learning and employee performance, employing quantitative methods. The results indicate that organizational learning has a positive and significant impact on employee performance, enhancing skills, work efficiency, and adaptability. Argote (2013) identified organizational learning as a fundamental process for the creation, retention, and transfer of knowledge within organizations. The study demonstrated that training and development initiatives facilitate individual learning. Noe (2020) adds that

effective training entails a deliberate effort by organizations to enhance learning relevant to work competencies. This encompasses not only technical capabilities but also communication skills, problem-solving abilities, and understanding of compliance. Kuruppu et al. (2021) found that when training content is well-designed and relevant, it improves employee performance in organizations. Empirical evidence indicates that the optimal training duration allows workers to practice intentionally, receive feedback, and reinforce their learning, all of which are linked to higher productivity, greater task accuracy, and improved overall performance (Blume et al., 2009; Baldwin & Ford, 1988). Research shows that training programs that are too short often don't give employees enough time to understand, practice, and absorb new skills, which can hinder their job performance (Saks & Burke, 2012; Salas et al., 2012). Conversely, overly long training sessions may lead to cognitive overload and fatigue, reducing motivation, focus, and retention (Noe, 2020). Additionally, well-spaced or staggered training over time improves knowledge transfer and retention, helping employees apply new skills more effectively in real-world settings (Saks & Burke, 2012). Garavan, Carbery, and Rock (2012) explain that structured development systems help people build their skills and perform better in their roles, which leads to lasting improvements instead of just short-term productivity gains. Research also shows that career and leadership development programs boost employee commitment and job skills, resulting in better performance (De Vos et al., 2011; Noe et al., 2014). Research indicates that effective career management practices result in higher engagement, motivation, and employee retention. Therefore, employees see a clear pathway for their professional development (AlTiti et al., 2022; Hosen et al., 2024).

Ahmad et al. (2015) found that factors such as training, capacity building programs, monetary and non-monetary benefits, organizational support for career development, and supervisory support influence employee performance. Therefore, organizational performance can be enhanced through the implementation of targeted measures such as employee job involvement, empowerment, job redesign, skill-based training and development programs, as well as appraisal and reward systems (Pfeffer, 1998, as cited in Ahmad et al., 2015). Task performance is shaped by employees' knowledge, skills, and abilities, as well as by organizational support mechanisms such as training and performance feedback (Campbell et al., 1993). Contextual performance is important in knowledge-based and public sector organizations, where collaboration and interpersonal support are critical for service delivery. This kind of behavior helps build a positive culture and environment in the organization, which supports both individual productivity and overall effectiveness (Pradhan & Jena, 2017).

### **Relationship between Training, Development, and Employee Performance**

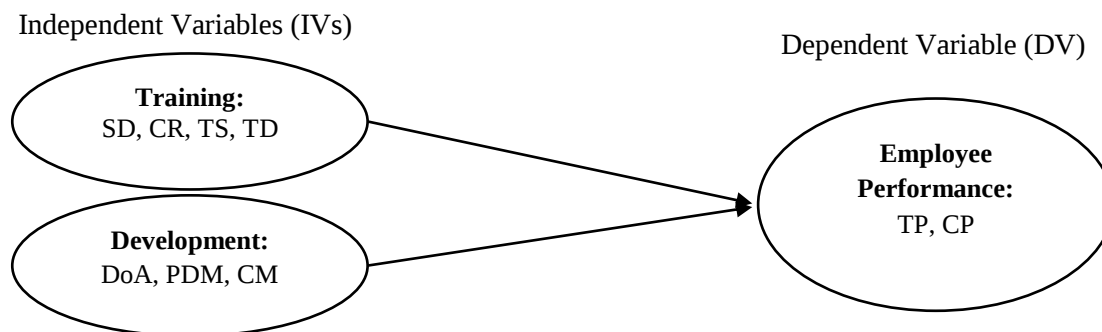
Training and development are widely recognized as essential tools for enhancing employees' knowledge, skills, and organizational effectiveness in both the public and private sectors (Yaqoobi et al., 2015; Armstrong, 2020; Noe, 2017). According to human capital theory, investing in training and development initiatives boosts employees' productivity, competencies, and experiential knowledge. Additionally, organizational learning theory states that development-focused practices such as career management, participation in decision-making, and delegation of authority promote ongoing learning and knowledge sharing, which in turn improve employee performance outcomes (Argote, 2013). Therefore, these enhancements lead to better individual and organizational results and support sustained improvements in job effectiveness beyond immediate task requirements (Becker, 1964). These initiatives are especially important for ensuring effective service delivery, accountability, and improved employee and organizational performance in the public sector (Pynes, 2013). Employee performance reflects how well employees complete their tasks and contribute to achieving organizational goals (Campbell & Wiernik, 2015). High employee performance results in increased productivity, better service quality, and greater efficiency, helping organizations remain competitive even with limited resources (Koopmans et al., 2012). Employee performance also links human resource practices to organizational outcomes by translating individual skills and efforts into measurable success (Boxall, Purcell, & Wright, 2007). Research indicates that organizations with high-performing employees tend to have stronger financial results, higher customer satisfaction, and greater innovation compared to those with lower performance levels (Jiang et al., 2012). In the public sector, strong employee performance is especially critical because quality service, legal compliance, and public trust depend on how effectively employees perform their

duties and support their teams (Van Loon, Vandenabeele, & Leisink, 2015). However, challenges such as inadequate workforce planning, cumbersome administrative procedures, and the lack of post-training evaluations have reduced the effectiveness of training programs in Afghanistan's public sector. As a result, many public organizations in Afghanistan continue to face low productivity, skill mismatches among employees, and overall weak performance (Ahmad & Patil, 2021; UNDP Afghanistan, 2018; Omari & Barakzai, 2024). Recent studies highlight that employee performance encompasses task performance, contextual performance, and adaptive performance, all vital for organizations to succeed amid changing environments (Pradhan & Jena, 2017). Task performance involves completing core job duties, while contextual performance fosters a positive work environment (Borman & Motowidlo, 1997). High employee performance also facilitates learning and knowledge sharing, helping organizations manage change and improve (Argote, 2013). Studies further indicate that employee performance links investments in training and development to long-term success, emphasizing its significance in human resource management (Becker & Huselid, 1998). In developing and transforming economies, strong employee performance contributes to building better institutions, reducing waste, and improving governance, especially in public organizations (Kim, 2012). When combined, training and development work most effectively together. This combined approach is especially vital in fast-changing workplaces where job requirements evolve rapidly (Noe et al., 2014). Research shows organizations that utilize both training and development achieve better outcomes and higher effectiveness than those focusing on only one (Delaney & Huselid, 1996). Overall, the evidence clearly demonstrates that employee performance is a key asset influencing efficiency, adaptability, and the achievement of strategic goals, making it a primary focus for both researchers and practitioners (Campbell & Wiernik, 2015). Despite the acknowledged importance of training and development, both theoretical and empirical research consistently reveal a strong positive relationship between these practices and employee performance across various organizational contexts (Tharenou et al., 2007; Salas et al., 2012; Al-Tit et al., 2022).

The AFDA plays a vital role in regulating and monitoring food, pharmaceutical, and healthcare-related products to protect public health and ensure compliance with national standards. Given the technical nature of its responsibilities, the AFDA requires a highly skilled, knowledgeable, and competent workforce capable of responding to evolving regulatory and operational challenges. Despite the extensive body of literature examining the relationship between training, development, and employee performance, empirical evidence remains limited in developing countries. Most research has focused on the private sector or developed countries; however, little is known about their effects in public-sector organizations in a post-conflict and developing country like Afghanistan. Therefore, there is limited information on how training and development influence the performance of employees in regulatory institutions where employee competence and performance are essential for ensuring the quality, safety, and effectiveness of public services. Addressing these gaps are essential for creating effective human resource strategies that improve employee performance and help organizations achieve their goals.

### Conceptual Framework

A conceptual framework provides a structured basis for identifying key variables and illustrating their hypothesized relationships based on theory and prior research (Hassan, 2024). The present framework examines training and development as independent variables and employee performance as the dependent variable, grounded in Human Capital Theory (Becker, 1964). Within this perspective, training and development are strategic investments that enhance employees' skills, competencies, and productivity. Training is represented by skill development, content relevance, trainer support, and training duration, while development is reflected through delegation of authority, participation in decision-making, and career management. Employee performance is measured through task and contextual performance. The framework posits that training and development, both individually and collectively, influence employee performance through short-term skill enhancement and long-term professional growth. Accordingly, the model guides hypothesis formulation and empirical investigation within the AFDA.



**Figure 1.** Conceptual framework of the impact of training and development on employee performance

Based on the conceptual framework and literature review, the study proposes the following hypotheses to examine the relationships among training, development, and employee performance.

## Hypothesis

**H10:** Training does not have a significant positive impact on employee performance at the Afghanistan Food and Drug Authority (AFDA).

**H20:** Development does not have a significant positive impact on employee performance at the Afghanistan Food and Drug Authority (AFDA).

## RESEARCH METHOD

This study employed a quantitative approach to examine the impact of training and development on employee performance at the AFDA. Training and development served as the independent variables, while employee performance was the dependent variable. Training was modeled as a higher-order construct comprising skill development, content relevance, trainer support, and training duration. Development consisted of delegation of authority, participation in decision-making, and career management. Employee performance comprised task and contextual performance. An explanatory cross-sectional survey design was adopted to assess the impact of training and development on employee performance. Data were collected at a single point in time using a structured questionnaire and analyzed through Partial Least Squares Structural Equation Modeling (PLS-SEM).

## Population and Sample

The present study focuses exclusively on managerial employees of the AFDA. The managerial staff plays a central role in planning, implementing, and evaluating training and development programs within the organization. They are directly involved in decision-making, employee supervision, and the translation of training outcomes into organizational performance. Hence, limiting the study to managerial employees is appropriate and justified, as it aligns with the objectives of the research and enhances the relevance, accuracy, and interpretability of the results. Total number of managerial employees are 645 and non-managerial staff were excluded from this study as the research focuses specifically on managerial roles and their involvement in training and development and performance-related practices.

The sample size for the study was determined using Yamane's (1967) formula, which is widely used for finite populations. The formula is expressed as:

$$n = \frac{N}{1 + N(e)^2}$$

Where n represents the sample size, N is the population size, and e is the level of precision. Using a population size of 645 and a margin of error of 5% (e = 0.05), the calculated sample size is approximately 247 respondents and simple random sampling technique was employed to select respondents from the

managerial employees. This method ensures that each individual in the population has an equal chance of being selected, thereby minimizing sampling bias.

### **Data Collection Procedure**

A standardized, self-administered questionnaire measuring training, development, and employee performance was used to gather data. Subject-matter experts reviewed the questionnaire to ensure clarity and content validity. Once formal authorization from the organizations was obtained, the questionnaires were distributed to respondents. Respondents were informed of the study's academic purpose and assured of confidentiality and anonymity. It was completely voluntary to participate. A total of 247 questionnaires were distributed. After checking for inconsistent or incomplete responses, 247 valid questionnaires were retained for analysis. The data were coded in MS Excel and analyzed in SmartPLS4 using the PLS-SEM algorithm, Bootstrapping, and PLSpredict/CVPAT.

### **Measurement Tools**

The measurement scales used in this study were developed and adapted from established literature to ensure content validity and methodological rigor. All items were measured using previously validated constructs, with minor modifications made to enhance clarity and contextual relevance to the study setting and are as follows:

Skill Development items were developed based on prior training transfer and evaluation literature (Baldwin & Ford, 1988; Kirkpatrick, 1994; Alliger et al., 1997), capturing the extent to which training enhances employees' knowledge, skills, and job-related competencies. Content Relevance items were adapted from Saks and Burke (2012) to assess the alignment between training content, job requirements, and organizational objectives. Trainer Support items were developed and adapted from established training effectiveness literature (Noe, 2020; Salas et al., 2012; Baldwin & Ford, 1988; Blume et al., 2009; Tannenbaum & Yukl, 1992), reflecting the quality of instructional guidance, feedback, and support provided by trainers during training delivery. Training Duration items were developed from prior literature on training effectiveness and transfer (Noe, 2020; Salas et al., 2012; Baldwin & Ford, 1988; Blume et al., 2009; Burke & Hutchins, 2007; Tannenbaum & Yukl, 1992), measuring the adequacy of training time for effective learning and skill acquisition. Delegation of Authority items were adapted from the Empowering Leadership Behavior Scale developed by Konczak, Stelly, and Trusty (2000), capturing managerial delegation of decision-making authority, autonomy, and responsibility alignment. Participation in Decision-Making items were adapted from Van Veldhoven and Meijman (1994) and further validated in subsequent research by Kumar and Saha (2017), measuring employee involvement in organizational and job-related decision-making processes. Career Management items were adapted from Sturges et al. (2002), assessing organizational support for career development, including training opportunities, developmental assignments, and career planning. Task Performance and Contextual Performance items were adopted from Pradhan and Jena (2017), with minor modifications to ensure contextual suitability for the present study.

Items were measured using a five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree), consistent with standard research methodology practices (Sekaran & Bougie, 2016; Hair et al., 2019).

## **FINDINGS**

### **Brief Introduction of the Techniques and Structural Equation Modeling (SEM)**

This study employed SmartPLS 4 software (Ringle et al., 2024) to analyze data and assess the proposed research model. Quantitative data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM), a variance-based technique widely used in business and social science research. PLS-SEM is suitable for complex models, small sample sizes, and non-normal data (Hair et al., 2014). It involves two main stages: measurement model assessment and structural model assessment (Ringle et al., 2018; Wong, 2013). The measurement model assesses construct reliability and validity through indicator

loadings, internal consistency reliability, convergent validity, and discriminant validity. The structural model then evaluates relationships among constructs using path coefficients and their statistical significance.

### Data Screening and Cleaning

Before data analysis, the collected data were screened and cleaned to ensure suitability for Partial Least Squares Structural Equation Modeling (PLS-SEM). The screening process involved checking for missing values, data entry errors, and inconsistencies in responses. The dataset was examined for completeness and accuracy before measurement and structural model assessment. Subsequently, the measurement model was evaluated for initial indicator reliability, internal consistency reliability, convergent validity, and discriminant validity. During this process, indicators with low outer loadings were identified and removed to improve measurement quality. Specifically, items SS1, SS2, SS3, GS2, and GS3 from Skill Development; CR1 and CR7 from Content Relevance; TP3 and TP6 from Task Performance; and CP1, CP2, CP5, CP6, CP7, and CP8 from Contextual Performance were deleted due to insufficient outer loadings. This procedure followed Hair et al. (2014), who recommend removing low-loading indicators when doing so improves reliability and convergent validity without affecting theoretical integrity. After purification, the remaining indicators demonstrated satisfactory psychometric properties and were retained for final measurement and structural model analyses.

### Data Analysis and Results

The measurement model was assessed to establish the reliability and validity of the constructs (Table 1). First, the factor loadings of all items in the model are greater than the minimum acceptable value of 0.50 (Hair et al., 2010). Although factor loadings over 0.7 are desirable (Vinzi et al., 2010), researchers often obtain weaker outer loadings ( $<0.70$ ) in social science studies. Rather than automatically eliminating indicators, the effect of the removal of the item on composite reliability, content, and convergent validity shall be examined. Generally, items with outer loading from 0.40 to 0.70 shall be considered for removal only if deletion results in an increase of Composite Reliability (CR) or Average Variance Extracted (AVE) over the recommended value of 0.50 (Hair et al., 2016). In the current study, removal of the items GS5 with loading = 0.698 and CR2 with loading = 0.687 would have not made a significant increase in the Composite Reliability (CR) and Average Variance Extracted (AVE) since the values for the construct were already above the recommended threshold. Furthermore, evaluation of the confidence interval of the loadings in the present study revealed that none of the outer loadings in the items include a zero. Hence, no items were removed from further analysis in the study.

Reliability was assessed using Cronbach's  $\alpha$ ,  $\rho_a$ , and Composite Reliability (CR), statistics for both were greater than the recommended value of 0.70 (Wasko & Faraj, 2005). The  $\rho_a$  value returned was between Cronbach's alpha and Composite Reliability (Sarstedt et al., 2017), it was also found to be over 0.70, hence, indicating good reliability (Henseler et al., 2016).

Convergent validity was acceptable because the Average Variance Extracted (AVE) was higher than 0.500. Discriminant validity was assessed by comparing the correlation among the latent variables with the square root of Average Variance Extracted (Fornell & Larcker, 1981), and heterotrait-monotrait ratio of correlation (HTMT) (Henseler et al., 2015), with value below the (Conservative) threshold of 0.85. Hence, discriminant validity is established (see Table 2).

**Table 1.** Reliability and Validity Analysis

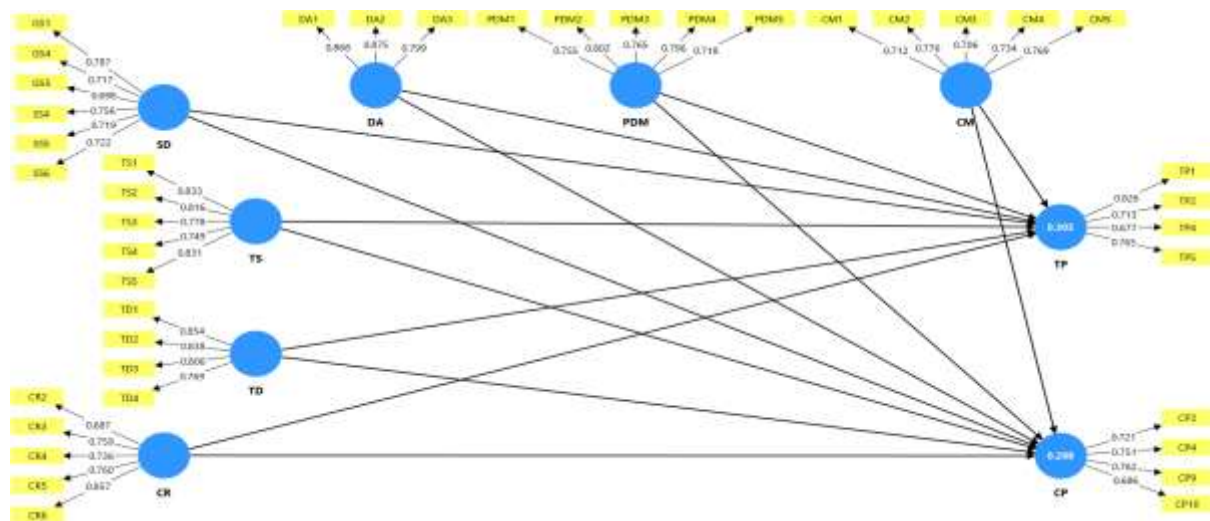
| Constructs                       | Items | Loadings | Cronbach's $\alpha$ | $\rho_a$ | CR    | AVE   |
|----------------------------------|-------|----------|---------------------|----------|-------|-------|
| Skill Development                | SS4   | 0.756    | 0.829               | 0.833    | 0.875 | 0.539 |
|                                  | SS5   | 0.719    |                     |          |       |       |
|                                  | SS6   | 0.722    |                     |          |       |       |
|                                  | GS1   | 0.787    |                     |          |       |       |
|                                  | GS4   | 0.717    |                     |          |       |       |
|                                  | GS5   | 0.698    |                     |          |       |       |
| Content Relevance                | CR2   | 0.687    | 0.822               | 0.861    | 0.873 | 0.581 |
|                                  | CR3   | 0.759    |                     |          |       |       |
|                                  | CR4   | 0.736    |                     |          |       |       |
|                                  | CR5   | 0.760    |                     |          |       |       |
|                                  | CR6   | 0.857    |                     |          |       |       |
| Trainer Support                  | TS1   | 0.833    | 0.862               | 0.873    | 0.900 | 0.643 |
|                                  | TS2   | 0.816    |                     |          |       |       |
|                                  | TS3   | 0.778    |                     |          |       |       |
|                                  | TS4   | 0.749    |                     |          |       |       |
|                                  | TS5   | 0.831    |                     |          |       |       |
| Training Duration                | TD1   | 0.854    | 0.839               | 0.875    | 0.889 | 0.668 |
|                                  | TD2   | 0.838    |                     |          |       |       |
|                                  | TD3   | 0.806    |                     |          |       |       |
|                                  | TD4   | 0.769    |                     |          |       |       |
| Delegation of Authority          | DA1   | 0.868    | 0.804               | 0.812    | 0.885 | 0.719 |
|                                  | DA2   | 0.875    |                     |          |       |       |
|                                  | DA3   | 0.799    |                     |          |       |       |
| Participation in Decision-Making | PDM1  | 0.755    | 0.826               | 0.832    | 0.877 | 0.589 |
|                                  | PDM2  | 0.802    |                     |          |       |       |
|                                  | PDM3  | 0.765    |                     |          |       |       |
|                                  | PDM4  | 0.796    |                     |          |       |       |
|                                  | PDM5  | 0.718    |                     |          |       |       |
| Career Management                | CM1   | 0.712    | 0.798               | 0.809    | 0.858 | 0.548 |
|                                  | CM2   | 0.776    |                     |          |       |       |
|                                  | CM3   | 0.706    |                     |          |       |       |
|                                  | CM4   | 0.734    |                     |          |       |       |
|                                  | CM5   | 0.769    |                     |          |       |       |
| Task Performance                 | TP1   | 0.826    | 0.737               | 0.759    | 0.834 | 0.559 |
|                                  | TP2   | 0.713    |                     |          |       |       |
|                                  | TP4   | 0.677    |                     |          |       |       |
|                                  | TP5   | 0.765    |                     |          |       |       |
| Contextual Performance           | CP3   | 0.721    | 0.713               | 0.725    | 0.820 | 0.534 |
|                                  | CP4   | 0.751    |                     |          |       |       |
|                                  | CP9   | 0.762    |                     |          |       |       |
|                                  | CP10  | 0.686    |                     |          |       |       |

*Note: CR: Composite Reliability and AVE: Average Variance Extracted.*

**Table 2.** Discriminant Validity - Fornell & larcker Criterion and Heterotrait-Monotrait (HTMT)

|     | SD           | CR           | TS           | TD           | DA           | PDM          | CM           | TP           | CP           |
|-----|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|
| SD  | <b>0.734</b> | 0.729        | 0.747        | 0.521        | 0.613        | 0.501        | 0.686        | 0.520        | 0.562        |
| CR  | 0.599        | <b>0.762</b> | 0.794        | 0.532        | 0.542        | 0.417        | 0.712        | 0.495        | 0.455        |
| TS  | 0.641        | 0.666        | <b>0.802</b> | 0.742        | 0.622        | 0.481        | 0.757        | 0.408        | 0.459        |
| TD  | 0.425        | 0.421        | 0.615        | <b>0.817</b> | 0.454        | 0.265        | 0.567        | 0.178        | 0.259        |
| DA  | 0.508        | 0.443        | 0.515        | 0.366        | <b>0.848</b> | 0.719        | 0.707        | 0.424        | 0.482        |
| PDM | 0.416        | 0.354        | 0.415        | 0.217        | 0.580        | <b>0.768</b> | 0.706        | 0.475        | 0.551        |
| CM  | 0.556        | 0.571        | 0.621        | 0.444        | 0.554        | 0.574        | <b>0.740</b> | 0.582        | 0.527        |
| TP  | 0.413        | 0.409        | 0.338        | 0.133        | 0.336        | 0.382        | 0.478        | <b>0.747</b> | 0.724        |
| CP  | 0.441        | 0.366        | 0.380        | 0.217        | 0.380        | 0.440        | 0.424        | 0.540        | <b>0.730</b> |

Note: Diagonal and Italicized are the square roots of the Average Variance Extracted (AVE). Below the diagonal elements are the correlations between the constructs' values. Above the Diagonal elements are the Heterotrait-Monotrait (HTMT) Values.



**Figure 2.** Lower Order Construct Structural Model

## Validating Reflective-Reflective Higher Order Construct

In this study, independent variables, Training and Development, were modeled as higher-order constructs. Training was operationalized through four lower-order dimensions: Skill Development, Content Relevance, Trainer Support, and Training Duration. Development was operationalized through three lower-order dimensions: Delegation of Authority, Participation in Decision-Making, and Career Management. Furthermore, the independent variable of Employee Performance was modeled as a higher-order construct comprising two lower-order dimensions: Task Performance and Contextual Performance. These constructs are measured as Reflective-Reflective higher-order constructs in this study. To establish the higher order constructs' validity, the factor loading, reliability, and validity was assessed. The factor loadings of all the indicators for Training, Development and Employee Performance have a value greater than the minimum acceptable value of 0.05 (Hair et al., 2010). None of the items were removed due to low factor loadings. Reliability was assessed using Cronbach's  $\alpha$  and Composite Reliability (CR), statistics for both were greater than the recommended value of 0.700 (Wasko & Faraj, 2005) for the higher order constructs (Table 3), therefore, indicating good reliability (Henseler et al., 2016).

Convergent validity was acceptable because the Average Variance Extracted (AVE) was higher than 0.500 for the higher order constructs. Discriminant validity was assessed by comparing the correlations among the latent variables with the square root of Average Variance Extracted (Fornell & Larcker, 1981) and the Heterotrait-Monotrait Ratio. The square root of Average Variance Extracted (AVE) for the constructs are higher than its correlation with all other constructs and Heterotrait-Monotrait (HTMT) results showed (Table 4) that Heterotrait-Monotrait (HTMT) ratio for is less than the required threshold of 0.85. Hence, discriminant validity is established for the higher order constructs.

**Table 3.** Factor Loadings, Reliability and Average Variance Extracted (AVE) for HOC (Training, Development and Employee Performance)

| Constructs           | Items | Loadings | Cronbach's $\alpha$ | $\rho_{\alpha}$ | CR    | AVE   |
|----------------------|-------|----------|---------------------|-----------------|-------|-------|
| Training             | SD    | 0.855    | 0.837               | 0.879           | 0.888 | 0.667 |
|                      | CR    | 0.848    |                     |                 |       |       |
|                      | TS    | 0.886    |                     |                 |       |       |
|                      | TD    | 0.658    |                     |                 |       |       |
| Development          | DA    | 0.821    | 0.799               | 0.807           | 0.881 | 0.712 |
|                      | PDM   | 0.851    |                     |                 |       |       |
|                      | CM    | 0.858    |                     |                 |       |       |
| Employee Performance | TP    | 0.872    | 0.701               | 0.702           | 0.870 | 0.770 |
|                      | CP    | 0.882    |                     |                 |       |       |

**Table 4.** Discriminant Validity - Fornell & larcker Criterion and Heterotrait-Monotrait (HTMT)

|                      | Training            | Development         | Employee Performance |
|----------------------|---------------------|---------------------|----------------------|
| Training             | <b><i>0.817</i></b> | 0.800               | 0.613                |
| Development          | 0.669               | <b><i>0.844</i></b> | 0.734                |
| Employee Performance | 0.498               | 0.553               | <b><i>0.877</i></b>  |

*Note: Diagonal and Italicized are the square roots of the Average Variance Extracted (AVE). Below the diagonal elements are the correlations between the constructs' values. Above the Diagonal elements are the Heterotrait-Monotrait (HTMT) Values.*

## Structural Model Assessment

Following the measurement model assessment, the structural model is evaluated by examining path coefficients and their significance to determine the relationships among the study constructs.

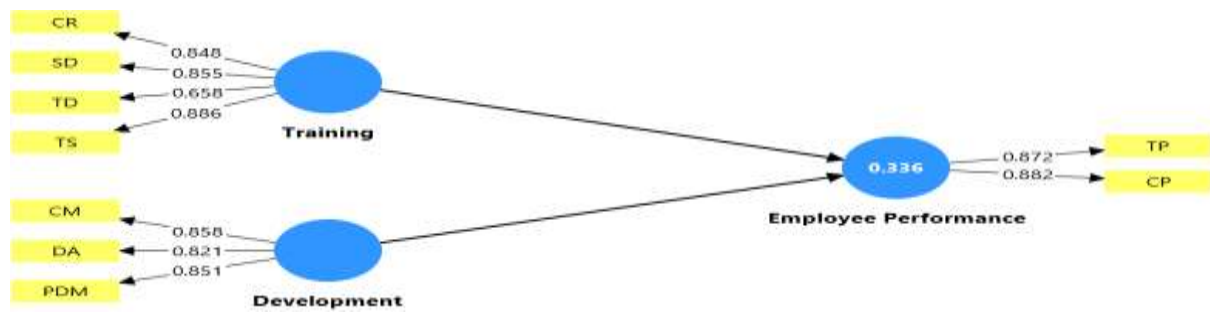
H1<sub>0</sub> evaluates whether training has a significant positive impact on employee performance at the AFDA. The results revealed that training has a significant and positive impact on employee performance at the AFDA, with the following statistics ( $\beta = 0.231$ ,  $t = 3.28$ ,  $P < 0.001$ ). Hence, H1<sub>0</sub> was not supported.

H2<sub>0</sub> evaluates whether development has a significant positive impact on employee performance at the AFDA. The results revealed that development has a significant and positive impact on employee performance at the AFDA, with the following statistics ( $\beta = 0.399$ ,  $t = 5.197$ ,  $P < 0.001$ ). Hence, H1<sub>0</sub> was not supported.

The results are presented in Table 5. The higher order construct structural model is presented in figure 3.

**Table 5.** Direct Relationships

| Hypothesis                          | Beta Coefficient ( $\beta$ ) | Standard Deviation | T statistics | P values | Results  |
|-------------------------------------|------------------------------|--------------------|--------------|----------|----------|
| Training -> Employee Performance    | 0.231                        | 0.070              | 3.280        | 0.001    | Rejected |
| Development -> Employee Performance | 0.399                        | 0.077              | 5.197        | 0.000    | Rejected |



**Figure 3.** Higher Order Construct Structural Model

## Explanatory and Predictive Power

$R^2$  statistics explain the variance in the endogenous variable explained by exogenous variables. In simple words, it means how much change in the dependent variable can be accounted by one of more independent variables. The  $R^2$  represents the variance explained in each of the endogenous constructs and is a measure of the model's explanatory power (Shmueli & Koppius, 2011), also referred to as in-sample predictive power (Rigdon, 2012). The  $R^2$  ranges from 0 to 1, with higher values indicating a greater explanatory power. As a general guideline, Cohen (1988) suggested  $R^2$  values for an endogenous latent variable are assessed as follows: 0.26 (substantial), 0.13 (moderate), and 0.02 (weak). However, acceptable  $R^2$  values are based on the research context, and in some disciplines an  $R^2$  value as low as 0.10 is considered satisfactory. The results (Table 6), show that  $R^2$  for the endogenous construct is over 0.26, and it indicates that the model's explanatory power is substantial (Cohen, 1988).

In order to better estimate the explanatory value of each exogenous variable in the model, the change in  $R^2$  is estimated if a given exogenous construct is omitted from the model. This measure is referred to as effect size or  $f^2$ . The effect size is the measure of the influence of each independent variable on the dependent variable. In the Partial Least Squares (PLS) path model, when an independent variable is excluded from the model, it measures the variation in squared correlation values and ascertains whether the excluded independent variable has a strong effect on the values of the dependent variable. The impact of the predictor variable is high at the structural level if  $f^2$  is 0.35, it is medium if  $f^2$  is 0.15, and small if  $f^2$  is 0.02 (Cohen, 1988). The model's  $f^2$  effect size shows how much an exogenous latent variable contributes to an endogenous latent variable's  $R^2$  value. In simple terms, effect size assesses the magnitude or strength of the relationship between the latent variables. The result (Table 6) revealed that  $f^2$  effect size ranged from 0.044 to 0.132 (Small effect) for Training and Development to Employee Performance.

Finally,  $Q^2$  is predictive relevance, which measures whether a model has predictive relevance or not.  $Q^2$  establishes the predictive relevance of the endogenous constructs. Therefore,  $Q^2$  above 0 indicates that the values are well reconstructed and that the model has predictive relevance. Hair et al. (2013) suggested  $Q^2$  values of predictive relevance of each effect are as follows: 0.02 (weak), 0.15 (moderate), and 0.35 (strong). Therefore, values for the endogenous constructs were over 0; hence, predictive relevance was established.

**Table 6.** Explanatory and Predictive Power

| Predictors  | Outcome              | $R^2$ | $f^2$ | $Q^2$ |
|-------------|----------------------|-------|-------|-------|
| Training    | Employee Performance | 0.336 | 0.044 | 0.312 |
| Development |                      |       | 0.132 |       |

## DISCUSSION

### Impact of Training on Employee Performance in the AFDA

This objective sought to determine whether training significantly influences employee performance in the AFDA. The findings revealed a positive and statistically significant relationship between training and employee performance ( $\beta = 0.231$ ,  $t = 3.280$ ,  $p = 0.001$ ). Since the p-value is less than 0.05, the null hypothesis (H1) was rejected.

The findings indicate that training contributes positively to employee performance by enhancing employees' knowledge, skills, and competencies required to perform their duties effectively. Employees who receive appropriate training are more capable of meeting job requirements, improving work quality, and increasing productivity. The results suggest that training remains an important human resource development practice that enables employees to perform their tasks more efficiently and effectively.

Although the effect size of training was small ( $f^2 = 0.044$ ), the relationship remained statistically significant, indicating that training contributes meaningfully to employee performance within the AFDA.

### Impact of Development on Employee Performance in the AFDA

This objective examined the effect of development on employee performance. The findings demonstrated a positive and statistically significant relationship between development and employee performance ( $\beta = 0.399$ ,  $t = 5.197$ ,  $p < 0.001$ ). Therefore, the null hypothesis (H2) was rejected. The findings suggest that developmental initiatives such as career management, participation in decision-making, and delegation of authority play a critical role in enhancing employee performance. Employees who are provided with opportunities for professional growth and organizational participation are more motivated and committed to achieving organizational objectives.

Furthermore, development exhibited a stronger effect on employee performance than training. The larger path coefficient and effect size ( $f^2 = 0.132$ ) indicate that developmental practices contribute more substantially to performance improvement within the AFDA. This finding highlights the importance of long-term employee development strategies in achieving organizational effectiveness.

### Strategies for Enhancing Training and Development Programs

Before individuals can perform effectively, they must first learn how to deal with the tasks, challenges, and situations they encounter. A management professional can successfully handle complex circumstances and crises because of the knowledge and skills acquired through learning and experience. Similarly, a skilled surgeon understands how a precise incision can save a patient's life, while a scientist combines different chemical elements to discover new solutions and improve human well-being. In each case, effective performance is preceded by learning and the development of expertise. Therefore, high performers are distinguished not only by their confidence and commitment but also by the knowledge, skills, and expertise they have acquired in their respective fields.

Findings of this study demonstrate that both training and development contribute significantly to employee performance. Therefore, organizational efforts should focus on strengthening training quality, expanding development opportunities, improving career management systems, encouraging employee participation in decision-making, and promoting delegation of authority. Such initiatives are expected to enhance employee competencies and improve overall organizational performance.

## CONCLUSION

### The impact of training on the performance of employees in the AFDA

Training has a significant positive impact on employee performance at the AFDA. The findings indicate that effective training programs improve employees' knowledge, skills, and competencies, thereby enhancing their ability to perform their job responsibilities successfully.

**The impact of development on the performance of employees in the AFDA**

Development significantly influences employee performance. Development initiatives such as career management, participation in decision-making, and delegation of authority contribute substantially to employees' professional growth and workplace effectiveness. Development was found to exert a stronger influence on employee performance than training.

**Strategies for enhancing training and development programs in the AFDA**

Continuous investment in training and development initiatives is essential for improving employee performance and achieving organizational effectiveness. Strengthening human resource development practices can significantly contribute to the long-term success of the organization.

Overall, the study established that both training and development significantly and positively affect employee performance at the AFDA. The structural model explained 33.6% of the variance in employee performance ( $R^2 = 0.336$ ), while the predictive relevance assessment ( $Q^2 = 0.312$ ) confirmed the model's predictive capability. Therefore, enhancing training and development practices should remain a strategic priority for the AFDA.

**Recommendations**

The AFDA should strengthen skill development initiatives through regular, needs-based training programs designed to enhance employees' professional and technical competencies in line with evolving organizational and regulatory requirements. Training content should be continuously improved through systematic training needs assessments to ensure alignment with job roles and organizational objectives. Given the stronger impact of development on employee performance, greater emphasis should be placed on employee development initiatives, particularly through strengthened career management systems that provide clear opportunities for growth and advancement. In addition, employee participation in decision-making should be encouraged to enhance motivation, commitment, and ownership of organizational goals, while appropriate delegation of authority should be implemented to improve accountability, confidence, and professional development. Finally, a structured monitoring and evaluation mechanism should be established to assess the effectiveness of training and development programs and ensure their continuous improvement in enhancing employee performance and organizational effectiveness.

**Future Research**

Future researchers should examine additional factors influencing employee performance that were not included in the present study. Since the model explained 33.6% of the variance in employee performance ( $R^2 = 0.336$ ), other organizational and individual factors such as organizational culture, compensation and rewards, work motivation, leadership, perceived organizational support (POS), work environment, and work-life balance may also contribute to employee performance and warrant further investigation. Although the present study assessed employee performance through Task Performance and Contextual Performance, Pradhan and Jena (2017) conceptualized employee performance as a multidimensional construct comprising Task Performance, Contextual Performance, and Adaptive Performance. Therefore, future researchers may include Adaptive Performance to provide a more comprehensive assessment of employee performance and to further validate the applicability of this dimension in different organizational contexts.

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