

## IMPACT OF TRAINING AND DEVELOPMENT ON EMPLOYEE PERFORMANCE: A SYSTEMATIC LITERATURE REVIEW

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### Abstract

*Training and development programs significantly impact the performance and productivity of employees in organizations. This study explores the diverse effects of training and development programs on employee performance. A thorough review of available literature and empirical evidence highlights the various ways in which training and development affect employee performance, such as through skill enhancement, motivation, job satisfaction, and organizational commitment. By understanding the dynamics of training and development, organizations can utilize these initiatives to enhance employee performance and attain a sustainable competitive edge in today's ever-changing business environment. The current study offers a concise summary of existing literature regarding the effectiveness of training and its role in improving employee performance.*

**Key Words:** *Training and development, training design, impact assessment, skill enhancement, motivation, job satisfaction, and organizational commitment*

### Introduction

The contemporary business environment is marked by swift technological progress, changing market dynamics, and increasing competition, making it imperative for organizations to invest in their most valuable resource - their employees (Blume et al., 2010). Training and development programs play a vital role in improving employees' skills, knowledge, and abilities, which in turn contributes to better job performance and overall success for the organization (Imran & Aiman, 2015). Numerous studies have explored how training and development influence employee performance, revealing a strong and positive correlation between these two variables (Salas et al., 2012). Nevertheless, despite the increasing interest in this subject, there remains a requirement for a thorough and structured review of the literature to blend the current knowledge and offer a more precise understanding of how training and development influence employee performance (Fegade & Sharma, 2023; Eisenberger et al., 2016). This systematic review seeks to fill this gap by investigating the empirical evidence concerning the relationship between training and development and employee performance.

Training and development are crucial components of human resource management, playing a vital role in enhancing employee performance (Blume et al., 2010). Training encompasses various activities, including laboratory work training, management training, and technical skills training, aimed at improving employees' current job performance (Fegade & Sharma, 2023; Asfaw et al., 2015). On the other hand, development is primarily focused on augmenting employees' skills and competencies to prepare them for future opportunities and challenges, which in turn results in better employee performance and the success of the organization (Imran & Aiman, 2015).

Employee performance plays a vital role in the success of an organization, as it has a direct effect on productivity, job satisfaction, and overall organizational effectiveness (Blume et al., 2010). Research has consistently shown that performance of employee is affected by a range of factors, which include training and development opportunities, leadership style, and organizational culture (Fegade & Sharma, 2023; Asfaw et al., 2015). Despite its importance, employee performance remains a complex and multifaceted construct, and there is ongoing debate among researchers and practitioners about the most effective strategies for improving employee performance (Imran & Aiman, 2015).

Employees have the power to either enhance or damage their organization's reputation and profitability (Blume et al., 2010). Additionally, they are responsible for a majority of the functions that can affect customer satisfaction, product quality, and overall events (Asfaw et al., 2015). Consequently, this study intends to evaluate the impact of training and development on employee performance through a systematic review of the literature (Imran & Aiman, 2015).

### **Significance of the Study**

It is believed that the review may hold significant relevance. This research can assist scholars in acquiring important experience, enhancing their knowledge and skills, and providing a comprehensive understanding of the subject. The results of this research emphasize the efficacy of employee training. This study is designed with a clear understanding of the different interests it addresses. The public sector organizations and training institutes are expected to be motivated by the findings to fully dedicate their efforts to training the employees for better employee performance.

### **Review Methods**

The literature review for this research followed the systematic review approach outlined by Campbell (2014) and further developed by Siddaway et al. (2019) in the social science domain, which requires that all stages of the review process are recorded and clearly presented. This entails a thorough examination and consolidation of existing studies concerning the effects of training and development initiatives on employee performance. Employing a systematic review facilitates the recognition of pertinent studies, the evaluation of their quality, and the integration of their results to derive significant insights.

### **Scope**

To qualify for inclusion in the review, this study focuses on the impact of training and development programs on employee performance. We exclusively considered studies published from 2010 to 2024, with appropriate studies needing to report on the impact of at least one of the specified indicators of training and development as well as employee performance. Only publications available in English were taken into account for this research. Studies that are inaccessible in full-text format or that do not directly pertain to the research topic were excluded.

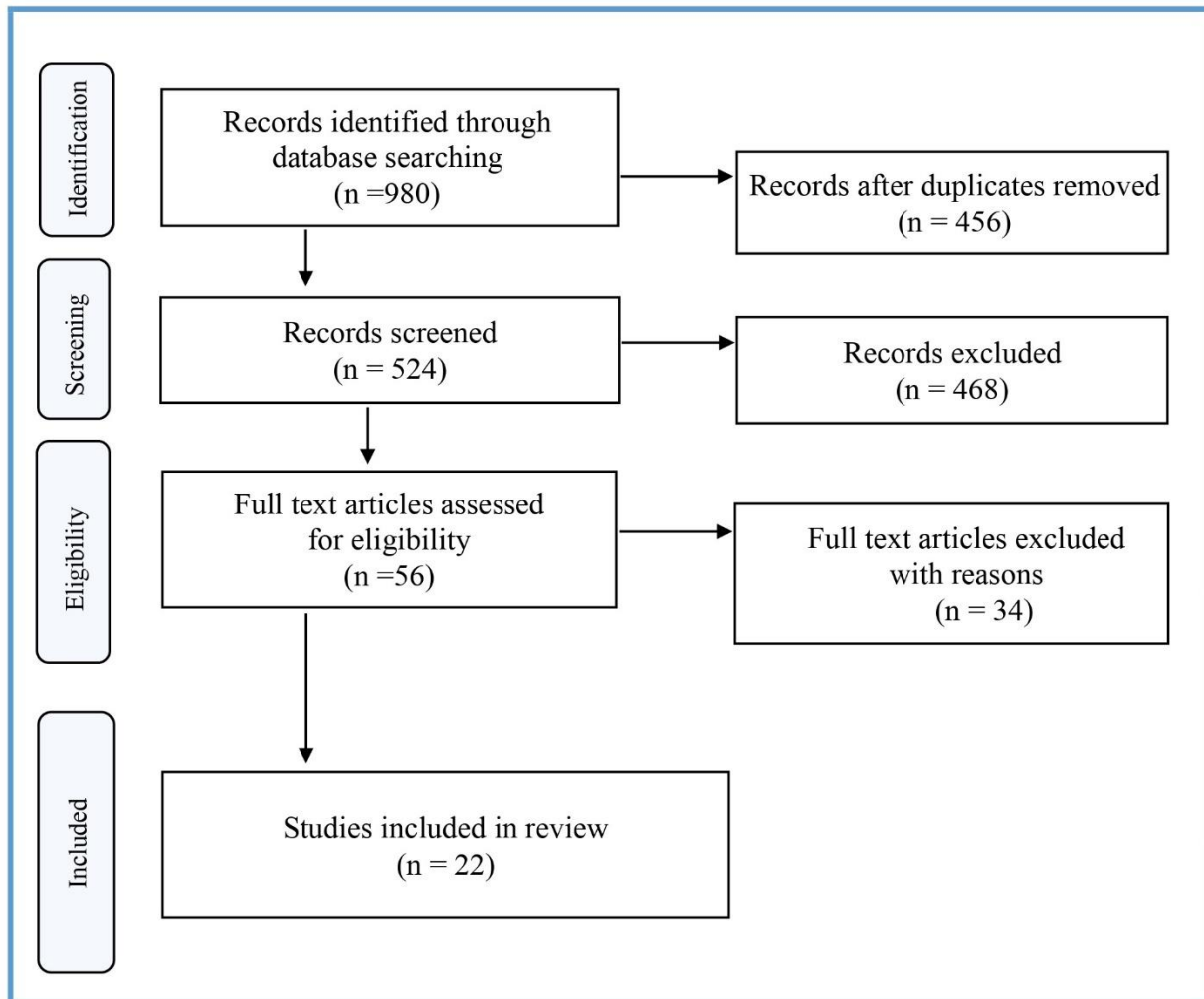
### **Search**

For the literature search, several electronic databases were accessed, including PubMed, Scopus, Web of Science, and Google Scholar. The search approach used a mix of keywords and controlled vocabulary terms, such as "training and development programs", "employee performance", and other associated phrases (Siddaway et al., 2019). The focus was on articles published in peer-reviewed journals over a specified period, to guarantee the research's relevance and timeliness. According to Moher et al. (2015), beginning a systematic review involves a thorough understanding of existing literature on the subject. To achieve this, the search commenced with a

random Google search to pinpoint relevant keywords (search terms) (Haddaway et al., 2015). The findings from this search were then utilized to create a keyword matrix, which was subsequently refined and employed in the chosen databases. The preliminary search utilized the terms “training and development”, and “employee performance”, as well as “on-the-job training” and “developing countries” (Blume et al., 2010). Additionally, after reviewing all pertinent articles, references from these articles were examined to uncover other possible studies. Consistent searches on Google Scholar were conducted during the course of the search process to include any recently published articles that fell within the specified scope.

### **Screening**

The initial search yielded 980 articles, which underwent a rigorous screening process to ensure they met the predefined inclusion criteria (Moher et al., 2015). To be eligible for inclusion, articles had to: (1) focus on the impact of training and development on employee performance; and (2) originate from a developing country. Following a thorough evaluation of titles, abstracts, and keywords, 456 articles were excluded due to duplicate records (Siddaway et al., 2019). The remaining articles were then consolidated and screened resulting in a final count of 56 unique articles (Haddaway et al., 2015). A full-text review was conducted, leading to the exclusion of an additional 34 articles, ultimately yielding 22 articles that met the inclusion criteria and were included in this systematic review for data extraction and synthesis (Blume et al., 2010). The selection process is illustrated in Figure 1.



**Figure 1:** Flow diagram of included studies following PRISMA framework

### Data extraction and critical appraisal

The information was gathered and examined to directly respond to the research inquiries presented in this review article. The gathered information encompasses details regarding authorship, the location and date of publication, the objectives of the study, the country of research, the methodology used, and the type and target population of intervention in the chosen studies. The study gathered information that focused mainly on the relationship between training and development and the performance of employees.

### Synthesis

The primary goal of any systematic review is to consolidate the information gathered during the data extraction phase. The study focused particularly on training and development as well as employee performance in developing nations.

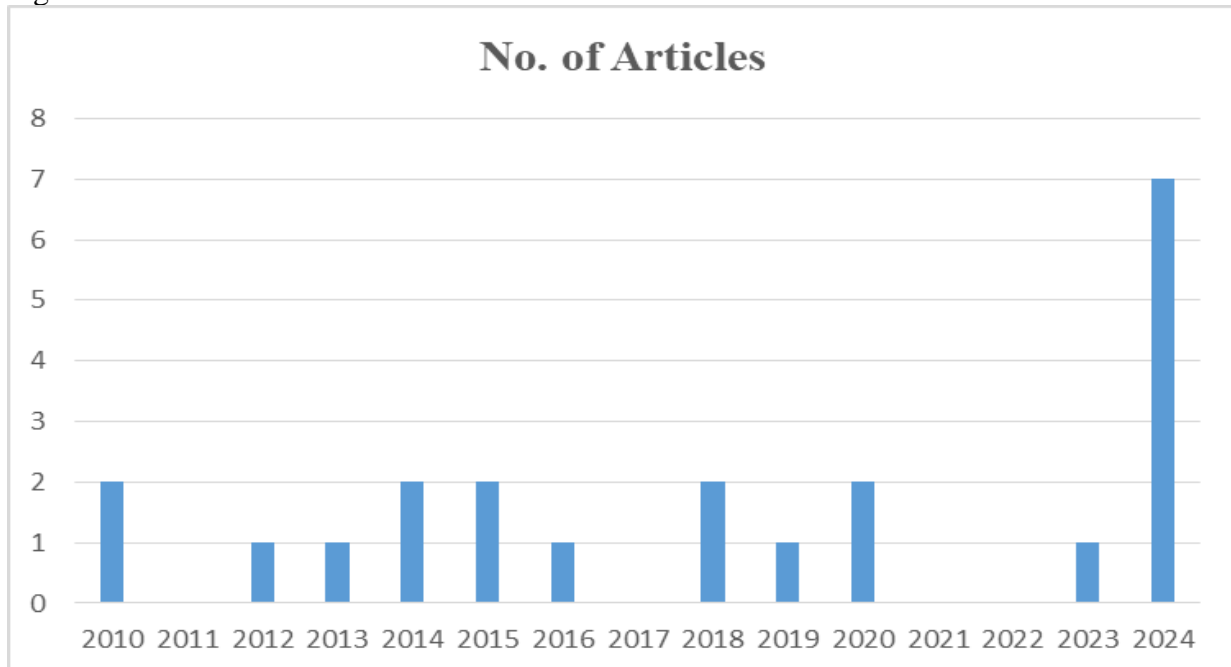
The synthesis of the included studies involves a narrative or thematic approach. The key findings, conclusions, and main outcomes from the selected studies are summarized and integrated to pinpoint shared themes, patterns, and trends. The similarities and variations in results across the studies are assessed and interpreted to acquire a thorough understanding of how training and development programs influence employee performance. Any inconsistencies or contradictory

findings were meticulously analyzed and discussed concerning the research goals and the broader body of evidence.

## Results and discussion

### Descriptive analysis

The systematic review included a total of 22 studies published from 2010 to 2024. Among these, 7 studies were released in 2024, marking it as the year with the highest number of publications addressing training and development and employee performance. For more information, refer to Figure 2 below.



*Figure 2: Descriptive analysis*

### Impact of training and development on employee performance

Operating an organization, regardless of its size, necessitates hiring capable personnel. However, the specific skills, knowledge, and competencies required in the workplace are often inadequately imparted through formal education (Baporikar, 2024). Consequently, most employees require comprehensive training to develop the essential skills, knowledge, abilities, and competencies needed to make meaningful contributions to the organization's growth (Rony et al., 2024; Blume et al., 2010). To ensure that employees are adaptable and efficient in their roles, they must acquire and enhance their skills and knowledge (Aguinis et al., 2020; Imran & Aiman, 2015). Furthermore, for employees to feel valued by their organization, they need to witness tangible signs of management's commitment to addressing their training requirements (Eisenberger et al., 2016; Fegade & Sharma, 2023). Every new employee must receive appropriate training, which not only fosters technical abilities but also integrates them into the organization (Salas et al., 2012; Baporikar, 2024). The distinct function of training lies in its contribution to achieving organizational objectives by aligning the interests of both the workforce and the organization (Imran & Aiman, 2015).

A key aspect of human resource management that significantly impacts the efficient utilization of human resources is training and development (Aguinis et al., 2020; Imran & Aiman, 2015). In today's world, few would dispute the significance of training as a key factor for organizational



success. To maintain effective performance, it is essential to align employee contributions with the organization's objectives (Fegade & Sharma, 2023). Research has highlighted that training plays a vital role in management (Blume et al., 2010), and its impact on employee performance and organizational success is well-documented (Eisenberger et al., 2016; Rony et al., 2024).

To achieve successful operation, any organization needs various resources, including materials, finances, supplies, equipment, innovative ideas for the goods or services it provides to potential users, and importantly, a workforce to manage the organization (Imran & Aiman, 2015). Human resource management, which focuses on effectively overseeing employees within the workplace, has evolved into a crucial function for many organizations and serves as a focal point for extensive discussions on modern business relationships (Fegade & Sharma, 2023; Kim et al., 2024). A key aspect of coordinating and managing work within an organization is the oversight of human resources (Blume et al., 2010), which encompasses the strategic management of employees to achieve organizational objectives (Nauman et al., 2020).

Training primarily involves a learning process aimed at developing improved skills and knowledge essential for executing a task (Imran & Aiman, 2015). The concept of training arises from the necessity for enhanced productivity and safety in the use of particular equipment or the requirement for a more efficient sales force (Blume et al., 2010; Baporikar, 2024). Research has shown that training is a crucial aspect of human resource development, leading to improved job performance, increased employee satisfaction, and enhanced organizational competitiveness (Fegade & Sharma, 2023).

Training encompasses the systematic implementation of established processes designed to help individuals acquire the knowledge and skills necessary to perform their job duties effectively (Blume et al., 2010). Such activities have been adopted as common practices in human resource management within organizations globally (Imran & Aiman, 2015; Aguinis et al., 2020). In today's business environment, training serves as a significant approach to reaching organizational objectives (Fegade & Sharma, 2023). It contributes to enhancing the performance of both employees and employers (Rony et al., 2024; Eisenberger et al., 2016). Employees are the most important resource for any organization, significantly influencing its reputation and profitability (Revathi, 2024; Bustasar, et al., 2019). Several elements that influence employee performance include employee training, organizational policies, work conditions, job satisfaction, and interpersonal relations within the organization (Imran & Aiman, 2015). Consequently, training stands out as one of the most impactful methods to improve employee performance and to successfully and efficiently meet organizational objectives and goals (Bulut & Culha, 2010).

Training and development initiatives provide significant advantages at both the personal and team levels (e.g., motivation, attitudes, and empowerment) (Fegade & Sharma, 2023; Eisenberger et al., 2016). Managers strive to enhance employees' capabilities to foster a supportive work environment within the organization (Imran & Aiman, 2015; Kim et al., 2024). Through the implementation of successful training and development initiatives, managers enable their staff to obtain the vital knowledge, skills, and competencies required to meet organizational goals (Basir & Wahjono, 2014). This effort by upper management not only cultivates a positive global image for the organization but also boosts employee performance (Baporikar, 2024; Blume et al., 2010). Well-designed training and development initiatives allow employees to stay updated with the latest technological innovations while mastering the skills and competencies required for specific tasks, thus reducing the likelihood of errors at work (Asfaw et al., 2015). Training and development lead

to enhanced job performance and other beneficial outcomes like acquiring new skills; that contribute to job performance (Revathi, 2024).

Training and development are essential considerations for every organization, with the primary goal being to enhance employees' skills so that the organization can optimize the effectiveness and efficiency of its human resources (Imran & Aiman, 2015). An organization can gain a competitive advantage by winning the loyalty and connection of its employees, fostering a sense of identification with the organization (Fegade & Sharma, 2023; Elnaga & Imran, 2013). To ensure that employees are well-equipped for high performance, it is necessary to invest in training efforts (Wardiansyah et al., 2024). These efforts are integral to the broader human resource management strategy, which ultimately leads to increased employee motivation (Bulut & Culha, 2010; Eisenberger et al., 2016). However, the approach to training differs among organizations based on various factors such as the extent of change in the external environment, the level of change in the internal environment, the existing skill levels of the workforce, and how management perceives training as a means of motivation within the workplace (Aguinis et al., 2020; Blume et al., 2010). Organizations are currently encountering changes driven by rapid advancements in technology and global development (Imran & Aiman, 2015; Basir & Wahjono, 2014). These technological improvements have created a demand for the competencies and capabilities required to complete specific tasks (Blume et al., 2010). To address these challenges, corporations need enhanced and more effective training and development programs (Fegade & Sharma, 2023). Well-designed training and development initiatives foster a learning environment that supports the workforce, equipping them to tackle anticipated challenges more efficiently and effectively (Bulut & Culha, 2010). There is substantial evidence indicating that training and development efforts have a positive effect on the performance of individuals and teams (Eisenberger et al., 2016). To develop the necessary knowledge, skills, and abilities for employees to excel in their roles, effective training programs are essential and may also influence employee motivation and commitment (Bashar et al., 2024; Fegade & Sharma, 2023).

The synthesis of the review indicates that human resources are crucial and serve as the foundation of every organization, representing the primary asset of the organization (Imran & Aiman, 2015). Consequently, organizations allocate significant funds toward human capital to achieve optimal employee performance (Kim et al., 2024). Several factors can enhance employee productivity, such as flexible work schedules and training programs (Nauman et al., 2020; Blume et al., 2010). It is essential for organizations to meticulously design their training programs (Fegade & Sharma, 2023). Training design must align with the employees' needs (Asfaw et al., 2015). Organizations that develop efficient training programs suited to the needs of both their employees and the organization often see favorable results (Bustasar, et al., 2019; Wardiansyah et al., 2024). Training design appears to be a critical element in influencing both employee dynamics and overall performance. Poorly conceived training programs amount to wasted time and resources (Eisenberger et al., 2016).

On-the-job training enables employees to better understand their roles (Imran & Aiman, 2015). A further discovery from this review study indicated that individuals acquire knowledge more effectively through practical experiences rather than through theoretical learning (Asfaw et al., 2015). It is advantageous for organizations to provide their employees with on-the-job training since it offers cost savings and time efficiency (Basir & Wahjono, 2014; Blume et al., 2010). Providing employees with practical training is beneficial for organizations as it enhances experiential learning (Imran & Aiman, 2015).

The way training is conducted plays a vital role in the training and development process (Fegade & Sharma, 2023). Employees are very mindful of how the training is presented (Eisenberger et al., 2016). If a trainer fails to engage the audience with an engaging delivery, they risk wasting valuable time (Wardiansyah et al., 2024). Trainers need to captivate their audience during training sessions (Blume et al., 2010). The style of delivery holds significant importance in the training and development domain.

An employee's ability to perform effectively in their role is greatly hindered without prior training (Imran & Aiman, 2015). Those who have received training tend to outperform their untrained counterparts (Nauman et al., 2020). Organizations must invest in employee training to better achieve the overall objectives of the organization (Blume et al., 2010). Training and development enhance the overall productivity of employees (Fegade & Sharma, 2023). While training can be expensive, it ultimately yields greater benefits in the long term (Basir & Wahjono, 2014). Each organization should adapt its employee development strategies to meet the current demands to remain competitive (Asfaw et al., 2015).

Several key points emerge from this review study, highlighting the beneficial effects of training and development on enhancing employee performance. Details of these factors are mentioned in the section below.

### **Skill Enhancement**

Training and development programs serve as instrumental platforms for enhancing the knowledge, skills, and competencies of employees (Imran & Aiman, 2015, Revathi, 2024). Through targeted interventions like seminars, workshops, and on-the-job training, employees acquire new abilities and enhance their current skills, allowing them to execute their responsibilities with greater effectiveness and efficiency (Blume et al., 2010). Skill enhancement not only boosts personal job performance but also enhances the overall effectiveness of the organization by fostering innovation, problem-solving, and adaptability (Baporikar, 2024; Revathi, 2024).

Research has shown that skill enhancement is a key outcome of effective training and development programs (Eisenberger et al., 2016). By acquiring new skills and knowledge, employees are more prepared to carry out their job responsibilities with efficiency and effectiveness (Rony et al., 2024; Asfaw et al., 2015). As a result, focusing on skill enhancement training and development program is a primary goal for organizations.

### **Motivation and engagement**

Effective training and development initiatives can significantly impact employee engagement and motivation which are essential factors in job performance (Febrian & Solihin, 2024; Fegade & Sharma, 2023). By offering chances for education and career advancement, organizations show their dedication to the growth and well-being of their employees, which in turn boosts morale and job satisfaction (Blume et al., 2010; Ahmad et al., 2014). Additionally, employees who feel that their organizations are committed to their growth tend to show increased motivation, dedication, and willingness to go the extra mile, resulting in better performance results (Wardiansyah et al., 2024).

Research has consistently shown that employees involved in training and development initiatives experience higher levels of motivation and engagement, which results in greater job satisfaction, reduced turnover intentions, and enhanced overall well-being (Wardiansyah et al., 2024; Eisenberger et al., 2016). As a result, organizations place a high value on training and development programs that enhance employee abilities and knowledge while also fostering motivation and engagement.



### **Job satisfaction**

Training and development initiatives are strongly associated with employee satisfaction in their roles, which is a key factor influencing both performance and retention (Febrian & Solihin, 2024; Bustasar, et al., 2019). Studies have repeatedly indicated that employees who are provided with sufficient training and development resources express greater job satisfaction than their counterparts who lack these opportunities (Nauman et al., 2020; Aguinis et al., 2020; Gonzalez-Morales et al., 2018). This is attributed to the intrinsic rewards associated with learning and skill acquisition, as well as the positive impact of training on job autonomy, diversity of tasks, and career advancement prospects (Basir & Wahjono, 2014; Blume et al., 2010).

Training and development programs have a profound impact on employee job satisfaction, which is a critical determinant of employee performance and organizational success (Fegade & Sharma, 2023; Nauman et al., 2020; Ahmad et al., 2014). Research has consistently shown that employees who participate in training and development programs experience increased job satisfaction, as these programs provide opportunities for skill development, career advancement, and personal growth (Basir & Wahjono, 2014; Eisenberger et al., 2016). As a result, organizations focus on training and development initiatives that not only improve employee skills and knowledge but also foster job satisfaction and well-being.

### **Organizational commitment**

Employee commitment to the organization is another key outcome influenced by training and development initiatives (Bashar et al., 2024). When employees feel that their organizations are committed to their growth and career advancement, they are more inclined to build feeling of loyalty and attachment to the organization (Bulut & Culha, 2010; Blume et al., 2010). This psychological contract between employees and organizations promotes a supportive work environment defined by trust, teamwork, and reciprocal respect, which subsequently leads to enhanced performance and organizational effectiveness (Fegade & Sharma, 2023).

Training and development programs have a significant impact on organizational commitment, which is a critical determinant of employee performance and retention (Elnaga & Imran, 2013; Eisenberger et al., 2016). Research has shown that employees who participate in training and development programs experience increased organizational commitment, as these programs demonstrate the organization's investment in their growth and development (Bulut & Culha, 2010; Bustasar, et al., 2019). In addition, studies have indicated that organizational commitment plays a mediating role in the link between training and development and employee performance. This implies that training and development initiatives enhance employee performance by fostering greater organizational commitment (Bulut & Culha, 2010; Revathi, 2024). As a result, organizations emphasize training and development initiatives that enhance employee skills and knowledge while also fostering commitment and loyalty to the organization.

In summary, training and development programs that are carefully aligned with organizational goals and objectives can have a profound impact on employee performance. Such programs can improve employees' skills and knowledge and foster a sense of purpose and meaning, leading to increased intrinsic motivation, engagement, job satisfaction, and organizational commitment (Ahmad et al., 2014; Blume et al., 2010).

This systematic review consolidates evidence on the positive effects of training and development programs on employee performance (Bulut & Culha, 2010). The results consistently emphasize the advantages of investing in extensive training programs, showing a strong correlation between employee performance and the execution of training programs (Blume et al., 2010, Younas et al.,

2018). This review reveals that organizations prioritizing training and development experience improvements in employee performance (Fegade & Sharma, 2023; Elnaga & Imran, 2013). Additionally, these initiatives were shown to significantly impact overall organizational success, as evidenced by increased retention rates, enhanced customer satisfaction, and better financial outcomes (Asfaw et al., 2015; Revathi, 2024). Through an assessment of different training and development methods, the study found that hands-on training, coaching, and mentoring were especially successful in enhancing employee performance and skill enhancement (Bashar et al., 2024; Ahmad et al., 2014). These results offer important insights for organizations aiming to improve their training approaches. The study also highlighted multiple key factors essential for the effectiveness of training and development initiatives, including support from senior management, clear communication of the program's aims, alignment with the organization's objectives, continuous assessment, and feedback processes, and chances for employees to apply skills in the workplace (Basir & Wahjono, 2014; Eisenberger et al., 2016).

The findings suggest that training and development programs can lead to improved job performance, increased productivity, and enhanced employee skills and knowledge (Fegade & Sharma, 2023; Blume et al., 2010). The findings also emphasize the importance of aligning training and development programs with the organization's goals and objectives, while also ensuring that these programs are customized to address the specific needs of employees (Eisenberger et al., 2016; Imran & Aiman, 2015).

The study's findings have important implications for human resource development and organizational performance. Organizations that prioritize training and development initiatives are more likely to experience advantages such as enhanced employee performance, greater job satisfaction, and lower turnover rates (Bashar et al., 2024; Blume et al., 2010; Nauman et al., ). Moreover, the findings suggest that training and development programs can be an effective tool for addressing performance gaps and improving overall organizational performance (Fegade & Sharma, 2023; Elnaga & Imran, 2013).

### **Conclusion**

Our objective for this study was to synthesize and systematically review the current literature relating to the impact of training on employee performance. The research uncovered a significant number of published training articles from the designated timeframe, indicating an increasing interest in exploring how training impacts employee performance.

In conclusion, this systematic review presents strong evidence for the positive impact of training and development on employee performance. The results highlight the necessity of persistent investment in training and development initiatives to promote organizational success, boost job satisfaction, and improve employee retention. By prioritizing training and development, organizations can reap numerous benefits, including improved employee performance, increased productivity, and sustained competitive advantage. The purpose of the study in offering these recommendations was to motivate researchers and practitioners to actively address these questions, thereby improving the quality and efficiency of training programs.

Future research should focus on exploring the specific mechanisms by which training and development programs impact employee performance, as well as examining the role of contextual factors such as organizational culture and leadership style. Additionally, researchers should seek to develop more nuanced and sophisticated measures of training and development outcomes, in order to better capture the complex and multifaceted nature of employee performance.

Furthermore, the review raised several questions that are crucial to address in order to advance the training literature, including the influence of technology-driven training, the effects of training on employee well-being, and the efficacy of various training evaluation techniques. Moreover, future research should also investigate the impact of technology-based training and development programs on employee performance, as well as the role of artificial intelligence and machine learning in enhancing training and development outcomes.

In summary, training and development programs are vital for improving employee performance and organizational efficiency. By equipping employees with the essential knowledge, skills, and motivation to succeed in their roles, organizations can promote innovation, enhance productivity, and maintain a competitive advantage moving forward.

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