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Review Article

Employee Training and Development in a Changing Workplace: A Critical Review of Performance, Digital Learning, and Future Skills

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Abstract

Employee training and development have become important human resource management practices for strengthening workforce capabilities, improving employee performance, and preparing organisations to respond to changing workplace demands. However, the effectiveness of the former is determined not only by their availability but also by their relevance to job requirements, motivation to acquire new knowledge and skills, opportunities for their application, and the attitude of organisations to training. This paper presents a critical narrative review of 20 selected papers examining employee training and development, organisational performance, learning transfer, employee motivation, digital learning, artificial intelligence (AI) in human resource management, learning culture, and workforce reskilling and upskilling. The literature was thematically analysed to determine the themes, contradictions, and gaps that unify the findings as well as the divergent conclusions, contradictions, limitations, and research question. The review indicates that training and development can contribute to employee capabilities and organisational effectiveness; however, these outcomes are not always direct or consistent across organisational contexts. The literature suggests that training does not always lead to better employee performance on its own. Support from managers and employees' willingness to learn can make a difference in how training affects their work. Job satisfaction and the opportunity to use new skills in daily tasks are also important. Today, many organisations are using online training and AI-based tools to help employees learn new skills. However, not everyone has equal access to digital resources, and concerns about data privacy remain. Another challenge that should be addressed is that the employee might gain some knowledge in the training program and then barely apply the experience they gained in the workplace. ◷ 31 words↻ Further, there is a need for more research in various fields to establish the long-term benefits of such training for the employees It is crucial to investigate whether they can apply the learned skills in the workplace and if it allows them to meet the organisation's future requirements.

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KEYWORDS: Workplace training; employee performance; workplace learning; AI in employee development; skill application; employee development; digital skills; workforce reskilling.

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1. INTRODUCTION

A useful starting point is to distinguish training from development. Training is usually associated with improving knowledge and skills needed for current tasks, whereas development has a broader orientation toward future responsibilities, adaptability, and career growth. In practice, the two overlap: a programme designed to improve present performance may also prepare employees for more complex work. The distinction matters because organisations should define whether a learning intervention is intended to correct a current performance gap, prepare employees for future roles, or support both objectives.

A training need should not be assumed simply because a course is available or a new technology has been introduced. Needs analysis should connect organisational priorities, job requirements, and employees' current capabilities. This process may include performance data, manager observations, employee self-assessments, customer feedback, and changes in operating procedures. When these inputs are considered together, organisations are better positioned to identify whether the issue is a knowledge gap, a resource constraint, unclear expectations, or a wider work-design problem. Training is most appropriate when learning can reasonably address the identified cause.

The topic is important for both organisational effectiveness and employee experience. Relevant learning can help employees perform tasks more confidently, adapt to changed responsibilities, and see a clearer connection between their current work and future opportunities. At the same time, poorly targeted or inaccessible training can consume time without producing meaningful improvement. The central concern of this review is therefore not simply whether training is beneficial, but under what conditions training is more likely to contribute to performance, learning transfer, and sustained capability development.

The relationship between training and performance, however, is not automatic. Training must address a clearly identified need, use suitable learning methods, and provide employees with opportunities to apply what they learn. An employee may understand a new process during a training session but be unable to use it at work if the necessary equipment, time, feedback, or managerial support is unavailable. Similarly, a programme that is not aligned with job requirements may produce limited practical value even when participants report satisfaction.

The literature also reflects changes like workplace learning. Digital platforms, AI-supported human resource systems, and technology-enabled learning can expand access and support more personalised development. At the same time, these approaches raise questions about digital competence, privacy, trust, and the quality of learning experiences. Reskilling and upskilling have also become important as organisations respond to changing competency requirements.

This paper reviews selected literature on employee training and development, with particular attention to performance, motivation, learning transfer, digital transformation, and future skills. It aims to: (1) summarise major themes in the selected literature; (2) compare the reported relationships between training and employee or organisational outcomes; (3) identify limitations and gaps in the evidence; and (4) suggest directions for future research and practice.

2. REVIEW METHODOLOGY

The review is organised thematically rather than by individual papers. This approach has allowed me to compare and contrast the provided sources according to the themes they address: performance-related outcomes of training, the influence of motivational and organisational factors, the impact of digital learning and AI-enabled practices, and issues related to reskilling and upskilling. Using this strategy, I attempted to identify common conclusions and differences within each theme.

Since the provided sources differ in their aims, settings, and methodologies, the matrix created from the given documents includes categories such as objectives, methodology (where applicable), findings, limitations, and relevance. Due to the varied nature of the sources, their statistical data were not combined in the matrix. It is important to note that the present paper does not claim to pool the effect sizes of the analysed papers into a single source, as the set of articles does not provide a uniform basis for such an analysis.

One of the limitations of the present review is the lack of a documented search strategy, as the provided set of documents was not generated through searches in specified databases. Therefore, there is no guarantee that this set covers all articles related to the topic. Another limitation is the possibility of selection bias, which may have occurred during the selection of sources for analysis. The given papers target different audiences and address various aspects related to training and performance. For instance, several articles focus on recognition, learning culture, or AI-enabled training practices rather than directly analysing the impact of training on employees. Such a selection of sources was justified by the scope of the initial request and the possibility of using these papers as supporting evidence.

The papers were analysed in terms of their objectives, methodology (where applicable), findings, limitations, and relevance to the review. However, the final structure does not follow alphabetical or chronological order and does not provide a separate summary of each paper. Instead, the findings were grouped according to the themes that emerged during the analysis. These themes include (i) the influence of training on strategic performance, (ii) motivational and organisational aspects of learning, (iii) digital learning and AI-enabled practices, (iv) learning culture, and (v) reskilling/upskilling and future skills.

3. REVIEW OF LITERATURE

3.1 Training and Development as Strategic Human Resource Practices

Beyond the offering of a course catalogue, strategic alignment requires that those responsible for learning make informed choices about content, based on organizational goals, staffing needs, occupational analysis, and the work itself. Thus, a service organization may need to tie communication skills to customer resolution standards, whereas a computer occupation may require practice in spreadsheet, report design,

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and data interpretation. The point is that the work context is a valuable guide to content selection, and that it outweighs convenience or popularity.
received and something that had an actual impact.
The review also highlights the need to adopt a strategic approach to training design and delivery to ensure that knowledge and skills translate into the desired work behaviours. Lecturing, for example, may be an unsuitable choice for certain topics if it fails to provide sufficient opportunities for practice and feedback. Opportunities for on-the-job learning, combined with guided practice and feedback, demonstrations, simulations, peer coaching, and other methods, have been associated with successful training transfer. The most appropriate methods depend on the target behaviours and their associated risks, the trainees' experience, and the resources available to the organisation.
At the strategic level, evaluation should begin with identifying the capabilities to be developed, the targeted behaviours, and the evidence of improvement. This enables organisations to move beyond measures such as attendance or satisfaction and understand whether and how a particular programme contributes to improved performance. It also helps distinguish between a programme that was simply well received and one that has had an actual impact.
The selected readings reflect a consistent view that training and development should be considered from a strategic perspective. Khan, Khan, and Khan (2011) associate training, on-the-job training, training design, and delivery with organisational performance. Similarly, Rodriguez and Walters (2017) examine the relationship between training and employee performance. Fegade and Sharma (2023) review the impact of training on organisational effectiveness, emphasising the importance of design, delivery, motivation, and evaluation. Adhi (2026) adopts a broader perspective by linking training and development with organisational human resource development capabilities. This reflects his view that these interventions have the potential to generate higher-value outcomes when they are strategically aligned with performance management, career development, and other human resource practices. The same reasoning underlies the examination of training and organisational effectiveness in private universities by Ismael et al. (2021), as well as training, value creation, and employee performance in public services by Wanyama et al. (2026).
Each of these studies provides a useful basis for exploring the relationship between employee training and organizational performance, but none of them examines it in isolation or without considering a number of other variables. At the most basic level, the review by Fegade and Sharma (2023) makes it clear that training effectiveness is influenced by multiple factors, including motivation, management support, and evaluation. Similarly, the study by Adhi (2026) reflects a view that training and development interventions need to be evaluated not only at the employee level but also at the organizational level in terms of their impact on human resource development capability. A similar argument is made by Ismael et al. (2021) and Wanyama et al. (2026) in their respective contexts.
This review, then, serves as a valuable foundation for investigating the effectiveness of training interventions in general and their contribution to organizational performance in particular. The key issues to be explored include the alignment of training with strategic human resource management, an emphasis on the critical success factors, and a distinction between employee-level and organizational-level outcomes.

3.2 Training and Employee Performance: Positive Relationships and Mixed Results

Performance is a multifaceted construct that can pertain to specific tasks, behaviors, and processes, as well as to accuracy, productivity, quality of service, safety, adaptability, cooperative behaviors, and the achievement of organizational objectives. Consequently, a given training program may have a positive impact on some of these areas while having little or no effect on others. The choice of performance indicators should be determined by the intended audience and the nature of the program. Thus, in cases when the goal is to enhance employee knowledge, testing may be an appropriate form of evaluation. In contrast, in cases when the targeted behaviors are complex or ill-defined, their measurement may be challenging, and the focus may need to shift to the process by which they are learned. Most importantly, any given study must identify the performance construct it pursues to help interpret the results.
The review also underscores the importance of considering the impact of the training content on the opportunity to apply it in the workplace. Thus, even though an employee may demonstrate improved knowledge and skills immediately after a program ends, this may not be sufficient to overcome the constraints imposed by the work environment. As a consequence, the measured performance outcomes may be lower than expected, and the failure to account for this fact may lead to misleading conclusions. At the same time, improved performance may stem not from a training intervention but from changes in the work environment or the supervisory practices, as well as from the availability of resources and other factors. Thus, the impact of training on performance should always be considered within the context of these dynamics and the design of the study.
Finally, the review highlights the limitations of the evidence provided by cross-sectional designs, particularly if they rely on self-reported data. Thus, in cases when the training quality and employee performance are both measured through questionnaires, the results are susceptible to common method bias and should be interpreted with caution. Ideally, such studies should utilize mixed methods, rely on employee self-reports, managerial assessments, and objective measures, and include a longitudinal component in order to capture changes occurring before and after the intervention.
With regard to the literature, each of the selected readings offers a valuable perspective on the complex relationship between training and performance. Khan et al. (2011), for example, highlight the importance of training design and delivery in organizational performance, whereas Shibeika (2026) review the impact of training programs and employee development in the Saudi retail sector. Similarly, Babatunde, Yusuf, and Samson (2025) examine the role

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of training in employee performance in a Nigerian polytechnic. These studies provide a useful context for the investigation of the role of employee training and development in organisational performance.

3.3 Motivation, Organizational Commitment, and Transfer of Learning

A motivated workforce is often the key to achieving superior performance, and this is especially true for training and development interventions. This refers to employees' motivation to participate and engage in a given initiative as well as the extent to which they are likely to adopt and sustain the targeted behaviors after the formal program has ended. In this regard, managers can benefit from considering the factors that contribute to employees' expectations and attitudes towards training. Thus, prior to its initiation, employees may evaluate its relevance in terms of the content, its alignment with their career prospects, the available time, and other factors. During the program, their motivation may be influenced by the presentation and practice methods, as well as the opportunities to interact with peers and managers. After completion, the employees' motivation to adopt and sustain the new behaviors will be affected by the extent to which their efforts are recognized and rewarded, as well as their opportunities to utilize the newly acquired skills.

The role of organizational commitment in the relationship between training and performance is largely conditional upon the aforementioned dynamics, and there is no reason to consider it as an overarching influence. Thus, a manager's level of organizational commitment may determine their behavior, but it will not necessarily override the role of other factors, such as the design of the job or the availability of resources. The same rationale applies to the employee's perception of organizational commitment. In practice, the findings in this area should be used as a basis for a more comprehensive investigation of the dynamics at hand.

Finally, employees' transfer of learning can benefit from specific recommendations, such as instruction and practice, post-training coaching and feedback, and peer assistance and discussion. The critical success factors in this area include the identification of the skill or behavior to be transferred, the task where it will be applied, the support that is necessary to sustain it, and the timeframe. These factors ensure that the learning process is visible and measurable, and that the transfer is successful. This, in turn, will allow organizations to determine if and when additional interventions are necessary, such as a follow-up training course or a change in the work environment.

Motivation should be considered a critical success factor in training interventions. This view is supported by Haz's (2026) review of the literature on human resource training, development, and work motivation, which identifies several aspects that should be considered when designing training interventions. They include the employees' motivation to achieve training-related goals, their recognition and rewards, opportunities for responsibility and career advancement, and their perception of organizational support. The same factors are discussed by Fegade and Sharma (2023) in their examination of the role of motivation and management support in the relationship between training and organizational performance.

The findings by Pramudiana and Kui (2026) illustrate the complex interplay between employee motivation, organizational commitment, job satisfaction, and performance. Thus, in their investigation of the role of training and development in the performance of Generation Z employees, the authors find that commitment mediates the relationship between training and performance. By contrast, Dini and Lim (2026) highlight the role of job satisfaction and environment in the performance of hotel employees. None of these factors, however, have a direct impact on the training-performance link, and they should be considered within the context of organizational commitment and job design. Consequently, the findings from each of these studies can be utilized to develop a more comprehensive understanding of the mechanisms that intervene between training and performance.

3.4 Digital Learning and AI Human Resource Development

Digital learning technologies can be utilised in a variety of ways, including self-paced instruction, virtual classrooms, video demonstrations, learning management systems, mobile learning, online assessments, and blended approaches that combine online and instructor-led segments. Such solutions can be beneficial in terms of increased accessibility and flexibility, which is especially important for employees who are unable to attend classes due to geographic or time-related constraints. The ability to revisit the material at any time contributes to enhanced learning, as does the opportunity to take assessments and receive feedback. At the same time, the convenience of the solution and its technological capabilities should not be mistaken for results: a digital learning course will still require instructional design support, content development, and appropriate assessments in order to be effective.

AI technologies can support online learning in a variety of ways, such as skills discovery, individual recommendations, learning analytics, and skills forecasting. The effectiveness of such interventions will be determined by factors such as the quality and representativeness of the data utilised, the extent of employee buy-in, and the transparency of the algorithms. If employees are concerned about their data privacy or ability to influence recommendations, the effectiveness of these interventions will be limited.

A responsible approach to the utilization of AI-powered learning technologies will require data minimization and transparency, employee consent, access control, bias auditing, accessibility, and accountability. In other words, organizations must recognize their responsibilities and ensure that these solutions are utilized as a complement to traditional approaches to training and development. The learning analytics produced by such solutions can inform decisions, but they should not be used as a substitute for employee input. The effectiveness of a digital learning program should be determined by its ability to create opportunities for practice, feedback, and utilization, rather than the mere presence of such opportunities.

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Digital learning offers the potential to enhance employee flexibility while supporting their learning and development. However, the effectiveness of such solutions should be assessed based on individual performance, including the ability to acquire and maintain new competencies, rather than the amount of time spent interacting with the system. Therefore, future research should focus on comparing digital learning, classroom instruction, blended approaches, and on-the-job training in terms of individual performance outcomes, using objective and longitudinal measures.

The literature reviewed in this section includes numerous studies examining the role of digital learning and AI technologies. Das and Baruah (2026), for instance, discuss the application of digital transformation to improve employee training, while Situmorang and Loo (2026) examine digital HRM transformation and employee performance through the perspective of digital competencies. These studies demonstrate the potential of digital transformation while also highlighting the need for a careful assessment of its impact on individual performance.

3.5 Learning Culture, Recognition, and the Organisational Environment

A learning culture can be found in the behaviours and interactions of the employees, rather than in proclamations and policy statements. This entails creating the environment where mistakes are allowed and learning is encouraged, as well as the time and support for practising new skills. In many cases, the manager's role is critical, as their behaviours can either accelerate or impede the learning process. Thus, learning culture should be considered not only as the willingness to learn but also as the opportunity to learn.

Recognition plays a significant role in motivating employees; however, it should not be confused with learning culture. This distinction is particularly evident in the review by Shahzad, Naveed, and Khan (2026), which examines the role of recognition in employee motivation and performance. Recognition can contribute to achieving various organisational objectives, including employee retention and engagement. Nevertheless, it is not a guaranteed factor for success, as its effectiveness often depends on variables such as individual employee preferences. More importantly, recognition represents a concept distinct from learning culture. Therefore, although recognition can be used in different ways to support the training process, it should not be regarded as an integral component of learning culture.

Equally important is the role of access to learning, which often depends on the employee's demographics and personal circumstances. Thus, such factors as language proficiency, level of education, access to digital tools, physical or mental capabilities, shifts, location, and comfort with traditional learning formats can affect an individual's ability to participate in a given program. The responsibility of the organization is to ensure that the learning design takes these factors into account, such as by providing multiple modes of delivery, language options, and reasonable adjustments.

The organisational environment is a critical success factor that must be considered when designing any training intervention. It includes elements such as leadership, resources, recognition, and work design, which can either facilitate or hinder the training process. Shtembari et al. (2026), for example, examine learning culture, work engagement, and innovative work behaviour. Their findings indicate that work engagement plays a significant role in the relationship between learning culture and innovative work behaviour. This highlights the importance of a supportive environment, as well as the potential differences between employees who are willing to innovate and those who are not.

Stephen, Kanyaru, and Chesigor (2026) conduct a similar analysis of the role of recognition in motivating non-teaching staff in Kenyan TVET institutions. Recognition serves as a motivating factor for employees, but it cannot replace training and development. This study, therefore, provides valuable insights into the role of motivation and employee attitudes towards recognition, although these factors should be considered separately from training. Similarly, several studies examining the work environment and organisational effectiveness provide useful background for understanding learning culture, organisational effectiveness, and employee training. This review indicates that the organisational environment is a critical success factor in employee training and development. From a practical perspective, managers are responsible for providing employees with sufficient time and support to apply newly acquired skills, as well as recognising and rewarding such behaviours. From a research perspective, the next step is to determine how learning culture and managerial behaviours influence different employees.

3.6 Reskilling, Upskilling, and Future Competencies

Generally speaking, upskilling can be viewed as an enhancement of existing capabilities, whereas reskilling refers to preparing employees for a substantially different function. In both cases, the organization needs to undertake a systematic assessment of the future competencies required for a given occupation or role. These needs are likely to be determined by a variety of factors, including automation, digitalization, customer expectations, regulation, and business strategy. The same applies to the skills and competencies that need to be upgraded or acquired through training and development.

The process of future skills planning will be critical in ensuring that employees are prepared to meet the requirements of the future while making optimal use of the existing ones. The skills inventory analysis can serve as a useful tool in this regard, as it allows organizations to identify the capabilities that need to be upgraded, acquired, or replaced. The resulting skill gap analysis will enable the organization to prioritize the competencies that need to be addressed through internal development, recruitment, mentoring, and partnerships with educational institutions.

In addition, it will provide employees with the information they need to determine which competencies to pursue and how to leverage them in their career development.

Most importantly, future competencies will not be limited to technical and occupational skills. As most occupations evolve in terms of complexity and diversity, employees will need to combine their digital and analytical skills with communication,

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management, and interpersonal capabilities. The choice of competencies to prioritize will be dictated by the specific requirements of the job role and the changing needs of the organisation. organization and occupation in question, and further research is needed to determine the most appropriate mix for a given setting.

The focus on individual competencies, however, should be supplemented by an assessment of the learning processes that will enable employees to acquire and apply them.

The need for reskilling and upskilling is the reason why these topics have been the focus of considerable research. Zatwarnicka-Madura, Stecko, and Nycz (2026), for example, discuss the competencies required by the employer and analyze the barriers to development. They identify a number of competencies, including digital, analytical, green, specialist, and hybrid skills, and discuss the barriers to development that are currently impeding the process. Sawant, Thomas, and Kadlag (2022) examine reskilling and upskilling as the means to remain competent in a changing world. Gokhool, Gokhool, and Gooria (2025) discuss reskilling and upskilling students for the future, which provides a useful perspective on future needs but is less relevant for current employees. Finally, Ashfaq et al.

(2025) review training programs and employee skill development, which is helpful in determining the impact on current competencies.

The review, then, provides the student with the necessary background for discussing the importance of future competencies and the role of reskilling and upskilling in their acquisition. A future study should prioritize future skills planning, with the focus on the skills that need to be developed, those that need to be supported externally, and those that have already been acquired. One of the most important questions in this regard is whether the supply of skills corresponds to the demand, and thus whether employees will actually be able to utilize the competencies they acquire.

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3.7 Critical Synthesis of the Reviewed Literature

A central theme across the reviewed material is conditional effectiveness. Training is often presented as beneficial, but the pathway from participation to performance includes several steps: a relevant need must be identified; content must be learned; employees must retain and apply the learning; and the work environment must allow the new behaviour to be used. Failure at any step can weaken the outcome. This framework helps reconcile broad positive claims with findings that direct effects may be weak or depend on other variables.

The evidence base is also uneven. Some sources focus directly on employee training and performance, while others address broader HR development, digital HRM, recognition, learning culture, or reskilling among students. Their contribution is therefore not identical. Direct workplace studies are most relevant for claims about employee outcomes; adjacent studies can help frame contextual questions but should be clearly identified as indirect. Similarly, differences in research design and context limit the extent to which results can be generalised across sectors and countries.

The strongest conclusion that can reasonably be drawn from this selected set is not that training invariably improves performance, but that training should be designed and evaluated as part of a wider organisational system. The reviewed themes point to the importance of needs analysis, appropriate delivery, employee motivation, managerial support, transfer opportunities, digital governance, and continuous skills planning. These are also the areas where more rigorous and comparable research would be valuable.

Across the reviewed sources, three broad conclusions emerge. First, training and development are widely treated as important contributors to employee capability and organisational effectiveness. Second, outcomes depend on more than the existence of a programme: training relevance, motivation, commitment, managerial support, digital competence, and opportunities for workplace application may shape its value. Third, the evidence base is heterogeneous. It includes literature reviews, conceptual discussions, surveys in particular industries and countries, and studies of related constructs such as learning culture and AI-enabled HRM.

The positive findings should therefore be interpreted alongside studies that report non-significant direct or indirect relationships. Rather than viewing these differences as a contradiction to be ignored, a critical review treats them as evidence that the relationship between training and outcomes may be conditional. The next stage of research should be more explicit about which training intervention is being studied, which outcome is measured, over what period, and under what organisational conditions.

The selected set also includes studies with different degrees of direct relevance to employee training. Research on recognition, AI-enabled HR decisions, and student reskilling can inform the wider context, but should not be presented as equivalent to a controlled evaluation of workplace training. Clear distinctions between direct evidence, conceptual arguments, and adjacent evidence will strengthen the quality of future reviews.

Study 1: Impact of Training and Development on Organisational Performance

Author and year	Khan, R. A. G., Khan, F. A., & Khan, M. A. (2011)
Research objective	To examine how training and development, on-the-job training, training design, and delivery style relate to organizational performance.
Methodology	Literature-based/secondary-data review; the paper develops four hypotheses from prior literature and also refers to empirical data. The abstract does not clearly describe a reproducible search or sampling procedure.
Key finding	The authors conclude that training and development, on-the-job training, training design, and delivery style are positively associated with organizational performance.
Limitation	A transparent database/search strategy and a clearly specified empirical sample are not evident from the abstract. The conclusions are described as strongly literature-based; causal strength should therefore be interpreted

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	cautiously.
Relevance to the review paper	Provides a foundational source linking training design and delivery to organizational outcomes.
Critical analysis	Useful for establishing the long-standing performance argument. Compare its broad positive conclusion with newer studies that report non-significant direct effects or mediation, rather than assuming training always improves performance.

Study 2: Exploring the Impact of Employee Training and Development on Organisational Efficiency and Effectiveness—A Systematic Literature Review

Author and year	Fegade, T., & Sharma, P. (2023)
Research objective	To synthesize literature on the relationship between employee training and development and organizational efficiency/effectiveness, including training methods, content, delivery, management support, motivation, and evaluation.
Methodology	Systematic literature review of studies across organizational contexts. The paper says it describes a review methodology and inclusion/exclusion criteria; exact search counts and full reproducibility should be checked in the methods section before citing them.
Key finding	The review reports that training and development can improve organizational efficiency and effectiveness, with outcomes shaped by management support, employee motivation, training design/delivery, and evaluation.
Limitation	As a secondary review, conclusions depend on the quality and coverage of included studies. Search completeness, heterogeneity, and the possibility of publication bias should be assessed from the full methods.
Relevance to the review paper	Directly supports the broader argument that training outcomes depend on more than attendance or training provision.
Critical analysis	This is the closest source in the set to a review-paper model. Avoid merely repeating its conclusions; use it to compare what later empirical studies add, especially digital learning, mediation, and context-specific results.

Study 3: Training and Development as a Strategic Pillar of Human Resource Development: Integration, Impact, and Innovation in Modern Organisations

Author and year	Adhi, Y. S. (2026)
Research objective	To examine how training and development is implemented, integrated with other HRD components, and transformed through innovation, and how it contributes to organizational performance and capability development.
Methodology	Qualitative integrative review of recent peer-reviewed literature, supplemented by illustrative organizational evidence from contemporary reports; thematic analysis of strategic alignment, system integration, learning transfer, and innovation.
Key finding	Training creates more organizational value when aligned with future capability needs, integrated with performance management and HR systems, and supported by engagement and data-informed decisions. Digital infrastructure improves access, but managerial capability and transfer remain important.
Limitation	The paper is integrative and includes illustrative reports rather than a clearly described primary empirical sample. The strength of conclusions depends on review transparency and the comparability of included sources.
Relevance to the review paper	Highly relevant to a future-oriented review framing training as a strategic capability rather than a stand-alone HR activity.
Critical analysis	Connects classic performance outcomes with systems thinking and digital innovation. Use it to organize a theme on strategic alignment, while distinguishing conceptual synthesis from causal evidence.

Study 4: The Effect of Training and Development Programs on Employee Performance in the Saudi Retail Industry

Author and year	Shibeika, A. M. (2026)
Research objective	To test the effects of training programs and development initiatives on employee performance in Saudi retail organizations.
Methodology	Quantitative questionnaire survey of 400 retail employees in Riyadh; analysis using SPSS, descriptive statistics, reliability analysis, EFA, Pearson correlation, multiple regression, and ANOVA.
Key finding	Training programs ($\beta = 0.412$, $p < .001$) and development initiatives ($\beta = 0.397$, $p < .001$) significantly predicted performance; the model explained 47.2% of variance ($R^2 = 0.472$). Regular, job-related training was associated with better performance.
Limitation	The sample is geographically and sectorally specific, and the cross-sectional self-report design limits causal inference and generalizability beyond the Saudi retail context.
Relevance to the review paper	Provides recent quantitative evidence for a positive training–performance relationship.
Critical analysis	Strongly supports the positive relationship, but should be compared with studies where direct effects are not significant. The contrast suggests that context, employee group, training relevance, and mediating variables may matter.

Study 5: Determination of Employee Motivation Through Human Resource Training and Development: A Literature Review from a Human Resource Management Perspective

Author and year	Haz, A. N. (2026)
Research objective	To review how HR training and development relate to employee work motivation using Herzberg's Two-Factor Theory.
Methodology	Literature review of 16 peer-reviewed articles published 2020–2025, searched through Google Scholar, Scopus, ScienceDirect, Emerald Insight, SpringerLink, and Wiley; thematic synthesis.
Key finding	The review indicates positive relationships between training/development and motivation, linked to achievement, recognition, responsibility, career advancement, growth, supervision, working conditions, and organizational policy. Perceived support, self-efficacy, commitment, and management support may shape the relationship.

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Limitation	The review is bounded by its 2020–2025 period, selected databases, search terms, and eligibility decisions. Its conclusions synthesize existing findings rather than establish causality independently.
Relevance to the review paper	Adds motivation as a potential mechanism linking training to performance and engagement.
Critical analysis	Useful for explaining why training may not translate automatically into performance. Integrate motivation as a contextual or mediating factor, but distinguish the review's theoretical synthesis from primary empirical results.

Study 6: Digital HRM Transformation Improves Employee Performance through Digital Competence

Author and year	Situmorang, I. R., & Loo, P. (2026)
Research objective	To examine whether digital HRM transformation improves employee performance and whether digital competence mediates this relationship.
Methodology	Quantitative explanatory study using employee questionnaires from people experienced with digital HR systems; Partial Least Squares Structural Equation Modeling (PLS-SEM). The abstract does not state the sample size.
Key finding	Digital HRM transformation positively relates to digital competence and employee performance. Digital competence partially mediates the relationship between digital HRM transformation and performance.
Limitation	The abstract does not specify sample size or sampling frame; results are context-bound to organizations adopting digital HR practices and may be affected by common-method/self-report bias.
Relevance to the review paper	Supports the digital capability and technology-enabled learning dimension of modern training and development.
Critical analysis	The study is about digital HRM more broadly, not training alone. Use it as adjacent evidence that digital systems require employee competence, not as direct proof that digital training itself causes higher performance.

Study 7: Digital Transformation in Employee Training: Trends and Effectiveness

Author and year	Das, R. R., & Baruah, R. (2026)
Research objective	To review digital training trends, implementation strategies, and their implications for engagement, knowledge retention, skill acquisition, productivity, and lifelong learning.
Methodology	Descriptive and analytical study based on secondary sources, including journals, industry reports, books, and organizational case studies.
Key finding	Digital training can improve scalability, accessibility, efficiency, engagement, and reduce training time/costs. Tools include e-learning, virtual classrooms, mobile learning, AI platforms, gamification, AR, and training analytics. Barriers include infrastructure, cybersecurity, resistance, digital literacy, and unequal access.
Limitation	The secondary-data approach may not provide a standardized effect estimate; the abstract does not identify a formal systematic search protocol or primary participant sample.
Relevance to the review paper	Directly supports the emerging-trends and technology-enabled employee training theme.
Critical analysis	Provides a broad map of digital modalities and implementation barriers. Pair it with empirical studies to distinguish promising technologies from demonstrated effects.

Study 8: Evaluating the Effectiveness of Training Programs on Employee Skill Development

Author and year	Ashfaq, R., Kannan, V., Shivani, A. C. K., Vishagan, A. C. K., Goyal, P., Ganji, L., et al. (2025)
Research objective	The abstract states an aim to evaluate organizational training effectiveness in improving employee skills and job performance using analytics, performance tracking, and competency-based assessment.
Methodology	The supplied document is an Indian patent application publication (Application No. 202511106418 A), not a conventional peer-reviewed empirical journal article. The abstract proposes an evaluation framework; a conventional sample/design/results section is not evident in the document extract.
Key finding	The document proposes combining data analytics, performance tracking, and competency-based assessment to evaluate training outcomes. Treat this as a proposed framework, not as verified empirical evidence of effectiveness.
Limitation	Patent-publication status and absence of clearly reported peer-reviewed empirical validation limit its use as evidence for outcome claims. The applicant/inventor list is long; bibliographic authorship should be checked before formal citation.
Relevance to the review paper	Conceptually relevant to training evaluation and measurement of skill development.
Critical analysis	Use cautiously and label it as a proposed framework if retained. For a scholarly literature review, prioritize peer-reviewed studies that validate training assessment methods; consider replacing this item with an empirical or peer-reviewed evaluation study.

Study 9: Human Resources Training and Development, Value Creation, and Employee Performance in the Public Service

Author and year	Wanyama, S. B., Eyamu, S., Muganga, C., Ndanyi, D. M., & Sansa, A. (2026)
Research objective	To examine the relationship between HR training/development and public-service employee performance, including the mediating role of HR value creation (perceived strategic HR role and HR service quality).
Methodology	Explanatory quantitative survey of 416 respondents across three ministries and seven local governments in Uganda; reliability/validity tests, correlations, hierarchical regression, and PROCESS bootstrapping.
Key finding	Training, employee development, perceived strategic HR role, and HR service quality were positively associated with performance. Strategic HR role and HR service quality partially mediated the training/development–performance relationship.
Limitation	The evidence is drawn from one national public-service setting and a survey design. Cross-sectional associations do not

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	establish temporal causality, and findings may not transfer directly to private-sector contexts.
Relevance to the review paper	Shows that HR systems and service quality can help explain how training contributes to performance.
Critical analysis	Adds a useful mechanism beyond a simple direct-effect model. Compare it with Generation Z and hotel-sector findings to demonstrate that the training–performance link may operate through different pathways in different contexts.

Study 10: Impact of Training and Development on Employees' Performance in Federal Polytechnic Offa, Kwara State, Nigeria

Author and year	Babatunde, S. O., Yusuf, A. B., & Samson, A. S. (2025)
Research objective	To investigate the effect/importance of training and development for employee performance in Federal Polytechnic Offa.
Methodology	The paper describes a descriptive mixed-method design using quantitative and qualitative data. The detailed sample, instruments, and analysis should be verified in the full text before quoting numerical results.
Key finding	The authors conclude that training and development are important for employee performance and organizational productivity.
Limitation	The study is confined to one Nigerian polytechnic; methods and numerical results should be carefully checked in the full article. Generalizability is limited by the single-institution context.
Relevance to the review paper	Adds evidence from a tertiary educational institution in an African context.
Critical analysis	Useful for showing sectoral and geographical diversity. Compare its conclusion with studies in retail, hospitality, public service, and private organizations; avoid overgeneralizing from one institution.

Study 11: Influence of Employee Recognition on Job Satisfaction among Non-Teaching Staff in TVET Institutions in Meru County, Kenya

Author and year	Stephen, F. G., Kanyaru, R., & Chesigor, F. (2026)
Research objective	To examine how employee recognition relates to job satisfaction among non-teaching staff in technical and vocational education institutions.
Methodology	Descriptive-correlational design; target population 235, sample selected using stratified and simple random sampling; 130 valid questionnaire responses; descriptive statistics, Pearson correlation, and simple linear regression.
Key finding	Recognition was positively associated with job satisfaction ($r = 0.657$, $p < .001$); regression indicated that recognition explained 43.2% of variation in job satisfaction.
Limitation	The study focuses on recognition and job satisfaction rather than training directly, and is geographically/institutionally specific. Cross-sectional survey data cannot establish causality.
Relevance to the review paper	Indirectly informs training outcomes by highlighting recognition and satisfaction as workplace factors that may complement learning and development.
Critical analysis	This is adjacent rather than core training literature. Include only if the paper discusses organizational support/motivation as a condition for training impact; otherwise, it may dilute the central scope.

Study 12: Reskilling and Upskilling Students towards a Better Future

Author and year	Gokhool, A. C., Gokhool, U. B., & Gooria, V. (2025)
Research objective	To evaluate learners' experiences and satisfaction with a reskilling/upskilling course and whether participants acquired new or upgraded skills.
Methodology	Quantitative study using an online structured questionnaire with four cohorts who completed a course delivered with the Human Resource Development Council and Open University of Mauritius.
Key finding	Respondents reported satisfaction and perceived skill acquisition/upgrading; Office Skills was especially well received. Respondents identified IT skills as an additional future need.
Limitation	The population comprises course participants in a particular program and country; self-reported satisfaction/learning may not equal objectively measured workplace performance. The abstract does not give cohort/sample size.
Relevance to the review paper	Supports the reskilling/upskilling and future competency development dimension.
Critical analysis	Relevant to lifelong learning and changing skill requirements, but it concerns adult learners/course participants rather than a typical employee-training intervention. Use it to discuss workforce transition, not as direct evidence of employee performance.

Study 13: Role of Artificial Intelligence in Transforming Employee Engagement and Decision-Making in Human Resource Management

Author and year	Bhadoria, N., & Kushwah, R. (2026)
Research objective	To examine AI's role in employee engagement and HR decision-making, including learning and development decisions.
Methodology	Descriptive-analytical survey of 120 HR professionals, team leaders, and employees in selected private organizations; purposive sampling; structured questionnaire; Cronbach's alpha of .85; frequency, percentage, mean, and chi-square analysis.
Key finding	AI-supported feedback, personalized learning suggestions, sentiment analysis, and predictive tools were perceived to support engagement and HR decisions. Challenges include privacy, monitoring concerns, bias, low trust, and limited emotional understanding.
Limitation	Purposive sample of 120 in selected private-sector organizations; questionnaire-based perceptions and cross-sectional design limit causal claims and generalizability.
Relevance to the review paper	Provides context for AI-enabled personalization and data-driven training/development decisions.

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Critical analysis	The focus is HRM broadly, not a direct test of AI training effectiveness. Use as emerging-context evidence and balance claimed benefits with ethical and governance risks.

Study 14: When Learning Culture Fails to Reach Everyone: Work Engagement and Employee Differences in Innovative Behaviour

Author and year	Shtembari, E., Kasapi, I., Cungu, E., & Cristofaro, M. (2026)
Research objective	To examine how organizational learning culture relates to innovative work behaviour, the mediating role of work engagement, and employee-level boundary conditions.
Methodology	Survey of 228 employees in organizations in Albania; established multi-item measures; regression-based mediation, moderation, and moderated-mediation analyses.
Key finding	Learning culture was positively associated with innovative work behaviour, with work engagement as an explanatory mechanism. The relationship appeared stronger among younger, lower-tenure, and non-managerial employees than among more organizationally embedded groups.
Limitation	The study uses a survey in one national context and the employee-group analyses are exploratory; results may not generalize across countries or sectors.
Relevance to the review paper	Connects organizational learning culture and engagement to innovation, helping broaden training outcomes beyond immediate performance.
Critical analysis	Highlights that learning culture may benefit employee groups unevenly. It is not a direct training intervention study, so frame it as evidence about the organizational context in which development occurs.

Study 15: The Effect of Training and Development, Career Development with the Mediation of Organizational Commitment on Employee Performance of Generation Z Employees in Jakarta

Author and year	Pramudiana, B. T., & Kui, D. O. K. (2026)
Research objective	To assess the effects of training/development, career development, and organizational commitment on Generation Z employee performance, including mediation.
Methodology	Quantitative questionnaire survey of 270 Generation Z employees in Jakarta; Partial Least Squares Structural Equation Modeling (PLS-SEM).
Key finding	Career development and organizational commitment had positive significant effects on performance, while training and development did not have a significant direct effect. Organizational commitment mediated the relationship between training/development and performance.
Limitation	Specific to Generation Z employees in Jakarta and based on a cross-sectional survey. Self-report and context-specific sample limit causal inference and generalizability.
Relevance to the review paper	Crucial counterpoint to studies reporting a direct positive training–performance relationship; emphasizes organizational commitment as a possible mediator.
Critical analysis	This is particularly valuable for critical synthesis. The non-significant direct effect suggests training may need career pathways and commitment to translate into performance; compare this with Shibeika (2026) and Wanyama et al. (2026).

Study 16: Work Environment, Employee Training, and Performance: Mediating Role of Job Satisfaction

Author and year	Dini, Y. I. F., & Lim, J. (2026)
Research objective	To test relationships among work environment, employee training, job satisfaction, and performance among employees in three-star hotels in Batam, Indonesia.
Methodology	Cross-sectional quantitative questionnaire study of hotel staff with at least six months' tenure; PLS-SEM analysis. The abstract does not state sample size.
Key finding	Work environment and training positively influenced job satisfaction and performance. Job satisfaction mediated the work-environment/performance relationship, but training's indirect path to performance through job satisfaction was not statistically significant.
Limitation	Hotel-sector and city-specific setting; cross-sectional questionnaire data; sample size is not stated in the abstract. Mediation findings may not transfer to other contexts.
Relevance to the review paper	Adds nuance on the pathways through which training may influence performance and satisfaction.
Critical analysis	Compare the non-significant indirect path with the commitment mediation found by Pramudiana and Kui. Different mediators may matter in different settings; do not treat job satisfaction as a universal mechanism.

Study 17: Reskilling and Upskilling in Business Practice: An Analysis of Needs, Barriers, and Directions for Competency Development from the Perspective of Employers

Author and year	Zatwarnicka-Madura, B., Stecko, J., & Nycz, E. (2026)
Research objective	To identify enterprise reskilling/upskilling practices, competency needs, barriers, and future directions from employers' perspectives.
Methodology	Mixed methods: survey of 383 employers in Poland's Podkarpackie Voivodeship using CATI/CAWI and non-parametric tests, plus in-depth interviews analyzed thematically.
Key finding	Competency gaps were reported across skill groups, especially digital, analytical, and green skills. Development remains reactive and relies heavily on traditional internal training. Four directions identified: technological-adaptive, specialist, pro-environmental, and hybrid competencies.
Limitation	Regional employer sample in one Polish voivodeship; employer perceptions may differ from employee experiences or actual competency assessments.
Relevance to the review paper	Strong source for future skills, strategic reskilling/upskilling, and barriers to forward-looking development.

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Critical analysis	Provides a bridge between present training practice and future workforce capability. Compare employer-reported skill gaps with learner-reported outcomes in Gokhool et al. (2025) to identify a possible demand–delivery mismatch.

Study 18: The Importance of Training and Development in Employee Performance and Evaluation

Author and year	Rodriguez, J., & Walters, K. (2017)
Research objective	To explain the importance of training/development for performance and evaluation, including benefits, approaches, and performance-assessment considerations.
Methodology	Conceptual/narrative discussion drawing on prior literature and professional sources; no clearly reported original sample or statistical analysis is presented in the abstract.
Key finding	Training and development can support morale, engagement, competencies, job performance, and organizational competitiveness; performance should also be evaluated systematically with attention to individual and contextual factors.
Limitation	Conceptual and practice-oriented rather than a transparent systematic review or primary empirical study; evidence strength depends on cited secondary sources.
Relevance to the review paper	Provides introductory background on performance evaluation and the need to assess training outcomes.
Critical analysis	Useful for definitions and general rationale, but it is older and broad. Give greater evidential weight to recent empirical research when making claims about specific effects.

Study 19: The Role of Training and Development on Organisational Effectiveness

Author and year	Ismael, N. B., Othman, B. J., Gardi, B., Hamza, P. A., Aziz, H. M., Ahmed, S. A., Sabir, B. Y., Ali, B. J., & Anwar, G. (2021)
Research objective	To investigate the relationship between training/development and organizational effectiveness in private universities.
Methodology	Questionnaire-based study described as qualitative in the paper, although it reports a survey: 120 questionnaires distributed and 102 responses received; random sampling and SPSS analysis are mentioned.
Key finding	The authors report a relationship between training/development and organizational effectiveness and argue that development programs support organizational progress.
Limitation	There is a methodological inconsistency in describing questionnaire/SPSS analysis as qualitative; the paper's design and measures should be interpreted cautiously. Sample is limited to private universities.
Relevance to the review paper	Broadens outcomes from individual performance to organizational effectiveness.
Critical analysis	Useful as supporting context, but methodological clarity is weaker than in studies with explicitly reported quantitative designs. Avoid relying on it as the strongest evidence.

Study 20: Reskilling and Upskilling: To Stay Relevant in Today's Industry

Author and year	Sawant, R., Thomas, B., & Kadlag, S. (2022)
Research objective	To create awareness of industrial trends and explain how reskilling and upskilling can help current and prospective employees remain relevant as technology changes job requirements, while benefiting individuals and organizations.
Methodology	Conceptual/narrative literature-based discussion using secondary sources, industry examples, and cited reports on automation, digital transformation, workforce skills, and reskilling/upskilling. No original sample, survey, or statistical analysis is reported in the article.
Key finding	The article argues that technological change and automation are increasing skills gaps and making continuous learning, reskilling, and upskilling important for employability and organizational competitiveness. It emphasizes adapting workforce capabilities as job roles and required competencies change.
Limitation	The paper is primarily conceptual and narrative, with no clearly described systematic literature-search protocol or original empirical validation. Several broad workforce projections are drawn from external reports and should be traced to their original sources before being repeated.
Relevance to the review paper	Directly supports the emerging-skills theme, especially reskilling/upskilling, technology-driven changes in job requirements, and continuous learning as part of employee development.
Critical analysis	Useful for explaining why employee training must evolve beyond one-time programs toward continuous capability development. Since the article is conceptual rather than an empirical evaluation, use it to frame the reskilling/upskilling theme and pair its claims with empirical studies measuring training outcomes.

4. DISCUSSION

Taken together, the findings imply that organisations should manage training as a cycle rather than a one-time event. The cycle begins with diagnosing a capability gap, continues through the design and delivery of learning, and extends into workplace application and evaluation. Feedback from evaluation should then inform the next round of needs analysis. This continuous cycle is particularly important when job requirements change frequently, because a programme that was relevant at one point may become outdated. A practical implication is that responsibility for learning should be shared. HR and learning specialists can coordinate needs analysis, instructional design, records, and evaluation; line managers can clarify job expectations and create opportunities for practice; employees can participate actively and identify barriers; and senior leaders can provide resources and signal that development is valued. When responsibility rests only with the training department, post-training application may receive insufficient attention.

Evaluation should match the objective and available evidence. Knowledge tests may be suitable for assessing factual learning, demonstrations or simulations for procedural skills, and supervisor observations for workplace behaviour. Operational indicators can be useful where a credible link to the training

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objective exists, but they should be interpreted alongside other factors that influence performance. Where possible, organisations should collect baseline measures and conduct follow-up assessments instead of relying exclusively on immediate post-course feedback.

For digital and AI-supported learning, the discussion adds a governance requirement. Decisions about data collection, personalisation, learner monitoring, and automated recommendations should be proportionate to the learning purpose and communicated clearly. Technology can support scale and personalisation, but organisations remain responsible for the relevance, accessibility, fairness, and practical value of the learning experience.

5. Research Gaps and Future Research Directions

5.1 A Need for Longitudinal Studies

Much of the research evidence cited in this review uses cross-sectional questionnaire designs. These can demonstrate links between variables, but say little about whether an outcome occurs and is sustained over time. Future research should aim to measure participants' responses before, directly after, and in the longer-term following training interventions.

5.2 Clarification of How and Why Training Works

A wide range of outcomes were used across the selected studies, including performance, motivation, satisfaction, organisational commitment, engagement and organisational effectiveness. Future studies should explicitly differentiate between these outcomes, and specify how each is measured. Completion of training and satisfaction with it, for example, should not be used as proxies for learning and improved performance.

5.3 Unpacking Influencing Variables

There is a need for future research to investigate the mechanisms by which training interventions have an impact. Influencing variables likely to be important include organisational commitment, job satisfaction, digital capability, managerial support, work environment, learning culture, and career development opportunities. There is potential for comparative analysis to investigate differences between sectors or employee groups, and to explore which factors are most critical.

5.4 Evaluation of Digital Training and Use of AI in Learning

Training interventions using digital technologies need to be evaluated more systematically than in this review. Future work should investigate differences between approaches and how best to utilise evolving technologies such as artificial intelligence in learning. Of particular interest are the ways in which employees can gain new skills, share learning, and feel confident in their abilities without undermining equity, trust, and privacy. Particular attention is needed to ensure that the use of AI to make decisions about employees is clearly distinguished from its use as a learning tool.

5.5 Future Skills Needs, Learning Provision, and Outcomes

Organisational demand for future skills (digital, analytical, green and hybrid capabilities) should be compared with employees' own skills needs, and aligned to the content of training provision. Future research might explore the extent to which reskilling supports internal career progression, employability, and organisational capacity to meet future skills needs.

5.6 Comparative, Multinational, and Mixed Methods Research

The studies included in this review differ in terms of the countries and sectors investigated, the populations studied, and the methods used. Future multinational and multisector studies should be conducted to explore similarities and differences between regions, and findings should be reported in sufficient detail to allow comparable synthesis.

6. CONCLUSION

This narrative review synthesises secondary academic literature on employee training and development, with particular attention to performance, learning transfer, digital transformation, artificial intelligence, and reskilling. The findings indicate that effective development depends not only on access to training but also on relevant content, employee motivation, managerial support, digital competence, and opportunities to apply learning at work. AI-enabled systems may support personalised learning, identify skills gaps, and facilitate continuous upskilling and reskilling; however, their use also raises concerns about organisational readiness, privacy, fairness, ethics, and employee trust. Organisations should therefore adopt AI as a carefully governed learning tool rather than treating it solely as a means of automation. Overall, training is most valuable when it is aligned with organisational needs, integrated with broader human resource practices, and evaluated through demonstrated learning, workplace application, and sustained outcomes. Future research should use longitudinal, comparative, and mixed-method designs to assess when technology-enabled training produces equitable and lasting benefits.

REFERENCES

1. Khan RAG, Khan FA, Khan MA. Impact of training and development on organisational performance. 2011.
2. Fegade T, Sharma P. Exploring the impact of employee training and development on organisational efficiency and effectiveness: a systematic literature review. 2023.
3. Adhi YS. Training and development as a strategic pillar of human resource development: integration, impact, and innovation in modern organisations. 2026.
4. Shibeika AM. The effect of training and development programs on employee performance in the Saudi retail industry. 2026.
5. Haz AN. Determination of employee motivation through human resource training and development: a literature review from a human resource management perspective. 2026.

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6. Situmorang IR, Loo P. Digital HRM transformation improves employee performance through digital competence. 2026.
7. Das RR, Baruah R. Digital transformation in employee training: trends and effectiveness. 2026.
8. Ashfaq R, Kannan V, Shivani ACK, Vishagan ACK, Goyal P, Ganji L, et al. Evaluating the effectiveness of training programs on employee skill development. 2025.
9. Wanyama SB, Eyamu S, Muganga C, Ndanyi DM, Sansa A. Human resources training and development, value creation, and employee performance in the public service. 2026.
10. Babatunde SO, Yusuf AB, Samson AS. Impact of training and development on employees' performance in Federal Polytechnic Offa, Kwara State, Nigeria. 2025.
11. Stephen FG, Kanyaru R, Chesigor F. Influence of employee recognition on job satisfaction among non-teaching staff in TVET institutions in Meru County, Kenya. 2026.
12. Gokhool AC, Gokhool UB, Gooria V. Reskilling and upskilling students towards a better future. 2025.
13. Bhadoria N, Kushwah R. Role of artificial intelligence in transforming employee engagement and decision-making in human resource management. 2026.
14. Shtembari E, Kasapi I, Cungu E, Cristofaro M. When learning culture fails to reach everyone: work engagement and employee differences in innovative behaviour. 2026.
15. Pramudiana BT, Kui DOK. The effect of training and development and career development, with the mediation of organisational commitment on employee performance of Generation Z employees in Jakarta. 2026.
16. Dini YIF, Lim J. Work environment, employee training, and performance: mediating role of job satisfaction. 2026.
17. Zatwarnicka-Madura B, Stecko J, Nycz E. Reskilling and upskilling in business practice: an analysis of needs, barriers, and directions for competency development from the perspective of employers. 2026.
18. Rodriguez J, Walters K. The importance of training and development in employee performance and evaluation. 2017.
19. Ismael NB, Othman BJ, Gardi B, Hamza PA, Aziz HM, Ahmed SA, et al. The role of training and development on organisational effectiveness. 2021.
20. Sawant R, Thomas B, Kadlag S. Reskilling and upskilling: to stay relevant in today's industry. Int Rev Bus Econ. 2022;7(1):Article 4. doi:10.56902/IRBE.2022.7.1.4.

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