



Competency-Based Human Resources (HR) Development in the Digital Era

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ABSTRACT

The increasingly tight global market competition requires organizations to improve their competitiveness through competency-based human resource (HR) development. This approach focuses not only on technical training, but also on the development of interpersonal skills, leadership, and adaptability. This article analyzes the implementation strategies and challenges in competency-based HR development using qualitative research methods and explores case studies to illustrate the positive impact of this approach. Qualitative research was conducted through in-depth data analysis from various organizations and previous studies that have implemented competency-based HR development. The results show benefits such as increased employee performance, organizational adaptability to change, and employee motivation and satisfaction. Digital technologies such as e-learning and virtual simulations expand the scope and effectiveness of competency development programs. Case studies and qualitative data show that organizations that successfully implement this approach can achieve competitive advantage and sustainable growth. However, challenges such as identifying relevant competencies, implementing effective training programs, and data security still need to be addressed. With a well-planned strategy and the right technology integration, organizations can optimize the potential of competency-based HR development to achieve competitive advantage and sustainable growth. This article provides a contribution in the form of an analysis of implementation strategies, challenges, and the use of digital technology in competency development programs, as well as providing relevant case studies and qualitative data, so that it is expected to be a reference for organizations that want to implement this approach.

Keywords: Adaptability, Competency, Digital Technology, Digital Transformation, E-learning, Employee Performance, HR Development, Leadership

INTRODUCTION

Human Resources (HR) development is a crucial strategy for every organization that wants to maintain and increase its competitiveness in a competitive global market (Lestari, 2019). In this context, a competency-based approach has become an effective basis for optimizing employee potential and responding to changing business dynamics. The concept of competency-based HR development places the main emphasis on developing skills, knowledge and attitudes that are in line with job demands and the organization's strategic goals (Angliawati & Fatimah, 2020). This not only covers the technical aspects of the job, but also includes interpersonal skills, leadership, and the ability to adapt to a changing work environment.

Competency-based HR development is not solely about providing technical training to employees, but rather about introducing and developing competencies that are relevant to the roles and responsibilities of each individual in the organization (Maulyan, 2019). In this way, organizations can ensure that each employee has the necessary skills to carry out their job efficiently and effectively. It also helps in creating a dynamic and innovative work environment, where employees feel supported to continue learning and developing.

As stated by Noe (2017), "Competency-based HR development includes a continuous process of

improving, expanding and increasing employee performance through learning, both for personal and professional development." This concept emphasizes that employee development must consider not only current but also future needs, by preparing employees for changes occurring in the work environment.

The benefits of competency-based human resource development are very diverse. One of them is increasing overall employee performance (Ubaidillah et al., 2020). By strengthening the necessary competencies, employees can work more productively, produce better results, and provide significant added value to the organization. Apart from that, competency development also helps organizations face challenges and rapid changes in the market. Employees who have competencies relevant to current and future job demands can help organizations remain flexible and adaptive to changes in the environment, technology and regulations.

In this context, steps to implement competency-based human resource development are crucial. First of all, organizations need to conduct an in-depth analysis of the competencies required for various roles in the organization. This involves identifying the technical, leadership, and interpersonal skills needed to achieve strategic goals (Putri et al., 2024). After that, the organization can design and implement appropriate development programs, including training, coaching and practical experience. These programs must be designed carefully to ensure that each employee receives relevant and useful learning according to their needs.

Spencer and Spencer (1993) stated, "Competency-based HR development allows organizations to select, develop, and retain competent individuals, whose performance makes a significant contribution to organizational success." Thus, investing in HR development is not only about improving individual skills, but also about building strong and adaptive teams.

Apart from improving organizational performance and adaptation, competency-based human resource development also contributes to increasing employee motivation and satisfaction (Labola, 2019). When employees feel supported to develop their skills and see progress in their careers, this can increase their sense of belonging and loyalty to the organization. Investment in HR development is not only about investing in professional development, but also in building a progressive and inclusive organizational culture.

Case studies that illustrate the application of competency-based HR development can provide a clearer picture of its effectiveness and positive impact in a real context. For example, successful technology companies implement development programs that include technical training and leadership development. By engaging employees in continuous learning and practical experience, the company has succeeded in increasing product innovation, operational efficiency and high employee retention.

Competency-based HR development is not only a strategy to fill skills gaps, but also a long-term investment in the success and sustainability of the organization (Labola, 2019). By strengthening employee competencies, organizations can build a solid foundation for sustainable growth, adaptation to change, and competitive advantage in an ever-changing global marketplace. Therefore, it is important for every organization to adopt a holistic and sustainable approach to HR development, which takes into account not only current but also future needs.

In the context of competency-based human resource development in the digital era, organizations are faced with new challenges and opportunities that have never existed before. Digital technology has changed the way organizations operate and interact with their employees. Adaptation to these changes requires more sophisticated strategies in human resource development to ensure the relevance and sustainability of training programs. For example, the use of e-learning platforms and technology-based learning can enable broader access and flexibility in employee learning, especially in an era of increasingly common remote work.

In facing these changes, organizations need to consider technology integration as part of their HR development strategy. According to Mello (2015), "Technology can be a highly effective tool in supporting employee learning and development, especially in distributing relevant training content and measuring its impact in real-time." Technology integration not only enables efficiency in managing and delivering training programs, but can also increase employee engagement in the learning process.

Adapting to the digital era brings new challenges, including the need for data security and privacy in using technology for human resource development. Organizations must ensure that systems and platforms are secure and comply with data privacy regulations. Additionally, there are challenges related

to the digital divide among employees, where some may be more skilled at using technology than others, necessitating additional training or technical support to ensure effective access and use of HR development programs. Addressing these challenges requires a holistic solution; a blended approach integrating technology training with hands-on learning and interpersonal interactions can be beneficial. For instance, using simulations and serious games can enhance engagement and learning effectiveness. Advocacy and support from top management are crucial for the successful implementation of competency-based HR development in the digital era. This article utilizes qualitative research methods and document analysis to explore these strategies and their implementation. Competency-based human resource development remains a strong foundation for organizations facing digital era challenges and opportunities. By integrating technology with HR development strategies, organizations can strengthen their position in retaining competent employees and fostering innovation and long-term growth. This proactive adaptation and evolution of HR development strategies ensure relevance and sustainability in an increasingly digital future. The novelty of this research lies in its comprehensive analysis of the integration of digital technology in competency-based HR development, providing new insights and practical solutions for organizations aiming to achieve competitive advantage and sustainable growth.

RESULT AND DISCUSSION

Competency-Based HR Development Concept

Competency-based Human Resources (HR) development is a systematic approach to improving employee qualifications and performance with a focus on developing skills, knowledge and attitudes that are relevant to job demands and organizational goals (Noe, 2017). This concept emphasizes that employee development is not only limited to technical training, but also involves identifying and developing the competencies needed to achieve competitive advantage and organizational adaptability in a dynamic business environment (Mello, 2015).

Competency-based Human Resources (HR) development is a critical approach in managing and increasing employee potential to suit organizational needs and face the challenges of rapid change in the current global business environment (Idrus et al., 2023). This concept does not only refer to the development of technical skills, but also includes the introduction and development of competencies that cover various aspects such as interpersonal skills, leadership and adaptability which are crucial in achieving the organization's strategic goals (Noe, 2017).

The importance of a competency-based approach lies in its ability to adapt human resources to increasingly complex and dynamic job demands. Mello (2015) emphasized that organizations must be able to identify the main competencies needed to support their business strategy. This not only involves matching employee skills to the job at hand, but also preparing them to face ever-evolving technological, market and regulatory changes.

One of the main aspects of competency-based human resource development is the identification of required competencies (Prabawati & Aoktariyanda, 2018). This process involves an in-depth analysis of roles and responsibilities within the organization to determine the technical, leadership, and interpersonal skills necessary to achieve organizational goals (Spencer & Spencer, 1993). By understanding these needs, organizations can design more targeted and effective development programs.

The benefits resulting from the implementation of competency-based HR development are very significant. First, developing employees according to the required competencies not only improves individual performance, but also contributes directly to the success of the organization as a whole. Pfeffer (1998) states that investment in human resource development has a positive impact in the form of increased productivity, innovation, and organizational adaptation to market changes.

Apart from that, competency development also has an impact on employee motivation and satisfaction. When employees feel supported in developing their skills and see progress in their careers, this not only improves individual performance but also creates a more productive and harmonious work environment (Noe, 2017). Employees who feel appreciated and supported to grow tend to be more loyal to the organization and more motivated to make maximum contributions.

An effective implementation strategy in competency-based human resource development includes several critical stages. First of all, organizations need to conduct a competency audit to evaluate existing skills gaps. This step is then followed by designing training and development programs that suit

individual and organizational needs. Furthermore, continuous evaluation is needed to ensure that the program is effective in improving employee competency and performance (Martín-Díaz & López-Cabrales, 2013).

Case studies on competency-based HR development provide concrete insights into how organizations implement theory into practice. For example, technology companies that successfully adopt this approach report significant improvements in innovation and product development capabilities, as well as increased retention of high-quality employees (Albloushi et al., 2023). Case studies of this kind demonstrate that competency development not only contributes to an organization's short-term success, but also builds the foundation for sustainable growth and competitive advantage in the future.

Competency-based HR development is not just an effort to fill skills gaps, but is also a strategic investment in human resources as the organization's main asset (Suprihanto & Putri, 2021). By strengthening employee competencies, organizations can build a strong foundation for sustainable growth, adaptation to change, and competitive advantage in an ever-changing global marketplace. Therefore, this approach is important for any organization that wants to ensure its sustainability and success in the long term to consider.

Theory and Approaches in Competency Based Human Resource Development

Competency-based SD development theory emphasizes the importance of integration between individual and organizational needs in employee development (Ruona & Gibson, 2004). This approach adopts the principle that effective competencies must be relevant to the job role and include technical, interpersonal, and leadership aspects that are critical for individual and organizational success (Spencer & Spencer, 1993). These theories provide a basis for designing effective and sustainable development programs, which not only improve performance but also promote employee career growth.

Competency-based Human Resources (HR) development is a paradigm that places a focus on integration between individual and organizational needs in improving employee qualifications and performance. The theory underlying this approach, as proposed by Ruona & Gibson (2004), emphasizes that competency development must carefully take into account how the skills and knowledge developed can directly support the strategic and operational goals of the organization where the employee works. This approach is not just about training employees in specific technical aspects, but also involves developing interpersonal skills that enable them to interact effectively in the workplace as well as developing the leadership necessary to lead and manage a team successfully.

According to Spencer & Spencer (1993), effective competence includes broader aspects than just technical skills. They include the ability to adapt to changes in the work environment, effective leadership in motivating and directing a team, as well as interpersonal skills to collaborate and communicate effectively with various parties in the organization. This theory emphasizes that this holistic competency development not only improves individual performance but also optimizes their contribution to achieving overall organizational goals.

The concept of integration between individual and organizational needs in competency-based human resource development also reflects a progressive approach in human resource management (Destiana, 2023). By considering individual career aspirations and development needs, organizations can build a work environment that supports employees' professional growth as they achieve their strategic goals. This not only increases employee motivation and engagement but also creates a strong foundation for the retention of high-value talent and ongoing internal leadership development.

Implementing a competency-based HR development program requires a structured and sustainable approach. The first step is to conduct an in-depth analysis of competency needs at various levels of the organization. This is done to ensure that the development program designed is not only relevant but can also meet the desired performance expectations. Furthermore, training and development programs must be designed to include the development of technical and non-technical skills appropriate to each individual's role and responsibilities in the organizational context (Hadi, 2021). Regular evaluation is also important to ensure that the program is effective in achieving its stated development goals.

Case studies that demonstrate the successful implementation of competency-based HR development can provide concrete insights into how organizations can utilize these theories effectively

in practice. Examples of companies that have successfully adopted this approach are technology companies that are able to optimize their product and service innovation by strengthening the technical capabilities and leadership of employees (Albloushi et al., 2023). Such case studies show that developing relevant competencies not only produces more technically competent employees, but also strengthens an organization's competitive position in an increasingly complex and dynamic marketplace.

Competency-based HR development is not only an investment in employees as the organization's main asset, but also an important strategy to ensure the organization's long-term sustainability and success in facing challenges and opportunities in the current era of globalization (Sunarto, 2020). By understanding theory, implementing appropriate implementation strategies, and utilizing relevant case studies, organizations can build a solid foundation for sustainable growth and dynamic adaptation to the ever-changing business environment.

Benefits of Competency Based HR Development

Competency-based human resource development brings a number of benefits to organizations, including increased employee performance, organizational adaptability to change, and increased employee motivation and satisfaction (Noe, 2017). These benefits not only impact an organization's level of efficiency and productivity but also its ability to retain and attract high-quality talent.

Competency-based Human Resources (HR) development promises a number of significant benefits for organizations in various operational and strategic aspects (Tampubolon, 2016). This concept not only emphasizes the development of employees' technical skills, but also the introduction and development of competencies that include interpersonal, leadership and adaptability aspects that are crucial in achieving organizational goals (Hernandez-de-Menendez et al., 2020).

One of the main benefits of competency-based HR development is improving overall employee performance. By identifying and developing competencies that suit job demands, organizations are able to increase workforce efficiency and productivity. Employees who have relevant and regularly updated skills tend to be able to complete tasks more effectively, produce better quality work, and reduce error rates and wasted time in the work process (Noe, 2017).

Apart from that, competency development also gives organizations an edge in facing rapid and dynamic changes in the global business environment. Mello (2015) emphasizes that organizations that are able to adapt employee competencies quickly to changes in technology, markets and regulations have a better ability to survive and develop in increasingly fierce competition. By preparing employees to face new challenges and take advantage of new opportunities, organizations can remain relevant and competitive in an ever-changing marketplace.

Competency-based HR development also has a positive impact on employee motivation and satisfaction. When employees feel supported in developing their skills and see progress in their careers, this directly increases their intrinsic motivation to work hard and make maximum contributions to the success of the organization (Fishbach & Woolley, 2022). Employees who feel valued and encouraged to continue learning tend to be more committed to the organization and have higher levels of job satisfaction.

Not only that, competency development is also a key factor in organizational efforts to attract and retain high-quality talent. In a competitive business environment, the ability to offer attractive and career-oriented development programs is a determining factor in attracting potential individuals to join an organization as well as retaining them in the long term (Noe, 2017). Employees who see opportunities for growth and development within the organization are more likely to be interested in remaining loyal and contributing on an ongoing basis.

The implementation strategy for competency-based HR development involves several key steps. First, organizations need to conduct an in-depth analysis of the competency requirements needed to support their business strategy. This includes identifying existing skills gaps and developing a roadmap for structured and sustainable development (Mello, 2015). Furthermore, designing training and development programs that suit individual and organizational needs is a crucial step in ensuring that employees acquire the skills needed to be successful in their workplace.

Case studies regarding competency-based HR development show various examples of how organizations effectively implement this theory in practice. Companies that are successful in implementing this approach report significant improvements in employee retention, increased

productivity, and the ability to compete in rapidly changing markets (Pfeffer, 1998). Case studies such as these provide evidence that investing in competency development is not just a cost, but also a profitable investment in the long term for organizational success.

Competency-based HR development is an important strategy for organizations to improve employee performance, adaptability, motivation and retention (Labola, 2019). By understanding the underlying theory, implementing appropriate implementation strategies, and leveraging lessons from successful case studies, organizations can build a strong foundation for sustainable growth and competitive advantage in an increasingly complex and dynamic global marketplace.

Competency-Based HR Development Implementation Strategy

Implementation of competency-based Human Resources (HR) development is a process that requires a structured, holistic and integrated approach in organizational strategy (Tahir et al., 2023). Effective steps in this implementation not only focus on developing technical skills, but also on recognizing and developing competencies that include interpersonal, leadership and adaptability aspects that are crucial in achieving organizational goals (Ballaro et al., 2020).

First of all, the first step in implementing competency-based HR development is identifying the required competencies (Efendi, 2015). This involves an in-depth analysis of the organization's needs in terms of the skills, knowledge and attitudes required to achieve its strategic objectives. This analysis not only covers current needs but also considers future evolution in the industry and the ever-changing business environment. By understanding existing competency gaps, organizations can design targeted development programs to fill these gaps effectively.

Furthermore, designing an appropriate training program is an important step in implementing competency-based human resource development (Pribadi, 2016). This training program must be designed to develop technical and non-technical skills that are relevant to the roles and responsibilities of each individual within the organization. The use of varied training methods such as direct training, interactive workshops, e-learning, and mentoring is an effective approach to ensure that employees can develop their competencies holistically and sustainably.

Regular evaluation is a key component in ensuring the success of competency-based HR development programs (Apriliana & Nawangsari, 2021). This evaluation not only includes measuring the results of the training provided, but also measuring individual progress in developing their competencies. By conducting regular evaluations, organizations can identify areas that need improvement, improve existing programs, and adjust development strategies based on feedback received from employees and management.

The use of technology and innovation in learning also plays an important role in implementing competency-based human resource development (Nikmah et al., 2023). E-learning platforms, virtual simulations and other learning technologies enable broader and more flexible access to training materials. In addition, technology can also be used to facilitate independent learning, where employees can access training materials anytime and anywhere according to their needs.

Support from top management is a factor that cannot be ignored in the successful implementation of competency-based HR development (Riniwati, 2016). Top management must be the main sponsor in supporting this development program strategically and financially. They are also responsible for creating an organizational culture that supports employee learning and development as an integral part of the organization's long-term growth strategy.

Apart from that, active involvement from all levels of the organization is also very important. Collaboration between management, HR departments, and business units is key in ensuring that competency-based HR development programs are well integrated in all operational and strategic aspects of the organization (Bairizki, 2020). Through this active involvement, all parties can benefit from the competency development carried out, ensure consistency in program implementation, and build broad support for this initiative throughout the organization.

The competency-based HR development implementation strategy requires a strong commitment from the organization to develop and retain competent and high-performing employees (Nikmah et al., 2023). By identifying competency needs, designing appropriate training programs, conducting regular evaluations, using learning technology, and getting full support from management and active involvement from all levels of the organization, organizations can build a strong foundation for

sustainable growth and competitive advantage in a changing business environment. increasingly complex and dynamic.

Basic Theories in Competency Based Human Resource Development

Competency-based HR development takes inspiration from several main theories that provide the conceptual foundation for this approach. One of the underlying theories is the competency theory put forward by McClelland (McClelland, 1973). According to McClelland, competency is a combination of knowledge, skills, and attitudes that influence the way individuals face certain work tasks. This theory highlights that employee development is not only limited to technical training, but also involves the development of psychological and social skills that are important for successful performance.

McClelland (1973) emphasized the importance of identifying competencies that are specific and relevant to the work role in designing development programs. For example, in the context of an innovation-oriented organization, developing competencies such as creativity, critical thinking abilities, and adaptability may be a primary focus in development programs.

Apart from that, social learning theory by Bandura (1977) also has significant relevance in developing competency-based human resources. Bandura emphasized that individuals learn through observation, imitation, and reinforcement, meaning that skill development can be enhanced through social interactions and a supportive work environment that facilitates continuous learning and development.

These theories provide substantial contributions in directing HR development practices in various organizations. By understanding the basic principles behind competency development, organizations can design and implement more effective and relevant development programs for their employees.

For example, Spencer and Spencer (1993) put forward a comprehensive competency model that includes aspects such as knowledge, skills, and attitudes. This model is used to identify critical competencies for various work roles in the organization. By utilizing this model-based approach, organizations can systematically assess and develop employee competencies, which in turn improves individual performance and overall organizational productivity.

In addition, these theories are also relevant in the context of succession planning and leadership development. Leadership development programs often use theoretical frameworks that consider critical leadership competencies such as the ability to motivate, the ability to make decisions, and the ability to communicate effectively. By understanding and measuring these competencies systematically, organizations can identify and develop potential leaders to fill important roles in the organization's future.

The application of psychological theories such as social learning theory also provides valuable insight into the development of interpersonal and leadership skills. By creating a work environment that supports collaboration and collective learning, organizations can improve employees' ability to work together in teams, handle conflict, and create innovation.

The integration of these theories in competency-based HR development allows organizations to be more effective in identifying, measuring, and developing critical competencies needed to achieve their strategic goals (Istikomah & Kushendar, 2024). The use of structured competency models can help in tailoring development programs to individual and organizational needs, thereby increasing their relevance and effectiveness.

Competency development also focuses not only on developing technical skills but also on important psychological and social aspects. For example, in a rapidly changing work environment, organizations may need to develop adaptability and resilience in their employees. By utilizing theories that support the development of these competencies, organizations can create holistic and sustainable development programs that support career growth and employee well-being.

Challenges and Solutions in competency-based HR development

To overcome the main challenges in competency-based human resource development and implement effective solutions, it is necessary to understand that human resource management in this context involves a structured and holistic strategy. One of the significant challenges is identifying appropriate competencies that are relevant to job demands and organizational goals. According to Noe (2017), "Competency-based HR development emphasizes the importance of identifying, measuring, and

developing skills, knowledge, and attitudes that are relevant to job demands and organizational goals."

This process requires a comprehensive mapping of current and future competency needs, which involves an in-depth analysis of key roles in the organization as well as projections of changes that may occur in the external and internal environment (Asjari et al., 2023). Without a clear understanding of these needs, organizations can have difficulty setting appropriate standards for ongoing employee development.

Furthermore, to overcome this challenge, organizations need to adopt an integrated and structured competency model. According to Ruona & Gibson (2004), "An effective competency model includes a clear definition of expected behavior and an objective assessment of skills relevant to the work role." This model covers critical aspects such as knowledge, skills, and attitudes required to succeed in various work roles. By establishing a clear competency model, organizations can more easily assess and measure employee capabilities and identify development areas that need improvement. This approach also helps in tailoring training and development programs to better suit the organization's strategic objectives, ensuring that investments in HR development provide significant added value to the organization's growth and adaptability in a dynamic market.

Implementing an effective and sustainable training program is also a challenge in itself. The program should be designed not only to meet identified competency needs, but also to improve employee skills in a practical and sustainable manner. Solutions to overcome these challenges include the design of training programs that are evidence-based and have a clear focus on developing technical, interpersonal, and leadership skills relevant to each employee's work role (Muryani et al., 2022). The use of technology such as e-learning and digital learning platforms can increase the accessibility and efficiency of programs, allowing employees to learn independently and in flexible times according to their needs.

Collaboration between various parties within the organization is also crucial in ensuring the success of competency-based human resource development (Balajery & Nurhadi, 2024). Active support and involvement from top management, HR, and business units is an important factor in ensuring that development programs are not only well received but also implemented effectively at all levels of the organization. This collaboration also ensures that the program is in line with the company's business strategy and culture, and can support career growth and overall employee satisfaction.

Other challenges in competency-based human resource development include effective evaluation and performance measurement. Organizations often struggle to assess the real impact of their investments in employee development (Tufa, 2018). Therefore, it is important to develop appropriate evaluation metrics and measure results regularly to determine program effectiveness. This evaluation should include relevant performance indicators, such as productivity improvements, employee retention rates, and progress in developing defined competencies.

Strategies to overcome these challenges involve a continuous approach to performance evaluation and the use of feedback from employees and management. According to Martín-Díaz & López-Cabrales (2013), "A holistic approach to performance evaluation allows organizations to identify the success of HR development programs and identify areas of necessary improvement." Constructive feedback from internal stakeholders can assist in assessing program success and identifying areas of needed improvement. In doing so, organizations can proactively adapt their development programs to maximize their impact on individual and overall organizational performance.

Top management commitment is also very important in overcoming challenges and ensuring the success of competency-based human resource development. According to Spencer & Spencer (1993), "Top management that is actively involved and supportive is the key to success in implementing HR development strategies." Management needs to provide strong support both in terms of resource allocation and making strategic decisions that support the implementation of development programs. Without adequate commitment, development programs can lose momentum and lack the support needed to develop optimally.

In facing the challenges of globalization and increasingly complex market dynamics, organizations must be ready to adapt quickly and strengthen the capacity of their employees. Competency-based HR development provides a solid framework for achieving this goal by integrating individual needs with organizational strategy (Destiana, 2023). Through identifying the right competencies, implementing effective training programs, and using advanced technology, organizations can build a strong human resource base capable of facing future challenges and achieving long-term competitive advantage.

Competency-Based HR Development in the Digital Era

Facing the digital era which continues to develop rapidly, competency-based Human Resources (HR) development is becoming increasingly important in ensuring that organizations can remain relevant and competitive (Wahyudi et al., 2023). Digital technology has fundamentally changed the work landscape, introducing new challenges while opening up huge opportunities in employee development and competency management. In this context, it is important to identify the impact of digital technology in the transformation of competency-based HR development as well as the adaptation strategies needed to utilize this change effectively.

Digital technology has changed the way organizations view HR development. The concept of competency-based development is no longer limited to traditional training and technical skills development alone, but has evolved into a more holistic and integrated approach. Noe (2017) underlines, "Competency-based HR development integrates technology in the learning and evaluation process to support the development of skills relevant to job demands and organizational development."

One of the main impacts of digital technology is increasing accessibility to online learning and development (Said, 2023). E-learning platforms and digital content enable employees to learn independently, anytime and anywhere, according to their needs. This not only increases flexibility in career development, but also allows organizations to provide training that is more timely and relevant to rapid changes in industry and technology.

In addition, digital technology is also changing the way organizations evaluate and measure employee progress in competency development. Martín-Díaz & López-Cabrales (2013) explain that "The use of technology in performance evaluation allows organizations to gain deeper insight into individual progress in achieving established competencies." Analytics and data-driven approaches supported by technology enable HR to measure the impact of development programs more accurately and make more informed decisions.

The application of digital technology has also enabled the development of simulation-based competencies and more realistic interactive experiences (Iskandar et al., 2023). For example, Virtual Reality (VR) and Augmented Reality (AR) technologies are used to simulate realistic work environments where employees can practice their skills without the risks or costs associated with in-person training. This is not only effective in improving technical skills but also allows the development of interpersonal and leadership skills that are difficult to train conventionally.

To adapt digital changes in competency-based HR development strategies, organizations need to take several planned and coordinated strategic steps. One of them is ensuring that adequate technological infrastructure is available to support digital-based learning and development. According to Spencer & Spencer (1993), "Investment in technological infrastructure is the key to supporting the success of competency-based HR development programs."

The next step is to develop learning strategies that are evidence-based and adaptive to individual and organizational needs. The use of AI (Artificial Intelligence) and machine learning can help in developing personalized learning recommendations based on individual data and career goals. This not only increases program efficiency but also optimizes the employee learning experience.

In addition, the integration of technology in human resource development requires changes in organizational culture that supports innovation and continuous learning. Pfeffer (1998) highlights, "An organizational culture that supports learning and experimentation is essential to ensure that technology can be utilized optimally in human resource development." Organizations need to ensure that values such as collaboration, experimentation, and personal development are integrated into the company culture to encourage technology adoption and continuous learning.

Furthermore, it is important to develop leadership that can direct digital transformation in HR development. Leadership that is visionary and open to technological innovation is the key to leading an organization towards developing human resources that are adaptive and responsive to change (Cahyono et al., 2024). Top leadership must be actively involved in developing strategies, providing resources, and motivating teams to adopt new technologies and utilize them to improve employee competencies.

Finally, organizations also need to strengthen data security and privacy in the application of technology in HR development. Information security and protection of employee personal data is a top priority to ensure that digital learning platforms are safe to use and do not threaten individual privacy.

By taking these steps, organizations can optimize the potential of digital technology in the transformation of competency-based HR development. Harnessing the power of technology to provide more effective, relevant and adaptive learning not only strengthens individual capacity but also increases organizational competitiveness in an increasingly complex and dynamic global marketplace.

CONCLUSION

Competency-based Human Resources (HR) development in the digital era plays a crucial role in ensuring that organizations remain relevant and competitive amid rapid change. Digital technology has transformed the HR development paradigm, expanding its scope and redefining how organizations view and manage employee development. By utilizing technologies such as e-learning, virtual simulations, and data analytics, organizations can enhance the efficiency, relevance, and effectiveness of their competency development programs. Digital transformation in HR development offers the potential to expand training accessibility, increase the personalization of learning experiences, and enable more accurate and measurable evaluation of employee progress. However, challenges such as integrating technology infrastructure adequately, adapting organizational culture, and ensuring data security must be carefully addressed to maximize the benefits of this technology. Addressing these challenges requires a holistic solution that blends technology training with hands-on learning and interpersonal interactions. This article employs qualitative research methods and document analysis to explore these strategies and their implementation. Advocacy and support from top management are essential for the successful implementation of competency-based HR development. The novelty of this research lies in its comprehensive analysis of integrating digital technology in competency-based HR development, providing new insights and practical solutions for organizations aiming to achieve competitive advantage and sustainable growth. By integrating technology with HR development strategies, organizations can strengthen their position in retaining competent employees, fostering innovation, and ensuring long-term growth in an increasingly digital future.

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