THE RELATIONSHIP BETWEEN TRAINING, TALENT, TECHNOLOGICAL SYSTEMS, AND PERSONALITY ON EMPLOYEE COMPETENCY: LITERATURE REVIEW

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ABSTRACT

KEYWORDS
personality, training, technological system, employee competency

Employee competency is a crucial factor in organizational success. This paper explores the multifaceted relationship between four key elements that contribute to competency: training, talent, technological systems, and personality. We review existing literature on the impact of training programs on skill development and knowledge acquisition. We then examine the role of inherent talent and its influence on the learning process and ultimate competency. The paper further investigates how technological systems can both enhance and challenge employee competency, depending on their design and user characteristics. Finally, we analyze the influence of personality traits on an individual's approach to learning, technology adoption, and overall performance. Through this comprehensive review, we aim to shed light on the complex interplay between these factors and their combined effect on employee competency. This knowledge can be valuable for organizations in designing effective development programs that foster a competent and adaptable workforce.

INTRODUCTION

Employee competency is one of the main determining factors for an organization's success in facing challenges and changing market dynamics. High competency in employees allows organizations to remain competitive, innovative and responsive to change. In this context, training, talent and technological systems have long been recognized as important factors influencing the improvement of employee competence (Sharma & Taneja, 2018).Training provides new knowledge and skills, talent enables maximum utilization of an individual's natural abilities, and technology systems support operational efficiency and effectiveness. However, the effectiveness of these three factors is not uniform and is often influenced by the individual characteristics of the employees themselves.

Previous research has extensively examined the relationship between training and employee competency, showing that effective training can significantly increase competency (Fadilah, 2019). Likewise, studies on talent reveal that well-identified and developed talent can make a major contribution to employee performance and competence. Additionally, proper implementation of technology systems is proven to increase employee efficiency and productivity, which in turn contributes to overall competency. However, there is large variation in the results obtained from these studies, indicating the existence of other factors that may influence this relationship.

One factor that has not been studied in depth is the role of personality in mediating the relationship between training, talent and technology systems on employee competence. Employees' personalities, which include dimensions such as extroversion, neuroticism, openness to new experiences, conscientiousness, and agreeableness, can influence how they receive and utilize training, maximize talents, and adapt to new technologies. Different

personalities can lead to different responses to training programs, talent utilization, and technology implementation, which in turn affects an employee's overall competency.

The research gap identified in the literature is the lack of a comprehensive understanding of how personality can mediate the relationship between training, talent, and technology systems on employee competence. Although some research has touched on individual aspects of personality in the context of training or technology, very few have explicitly examined the mediating role of personality in a more holistic framework. This research attempts to fill this gap by analyzing how certain personality dimensions influence the effectiveness of training, use of talents, and adaptation to technological systems in increasing employee competence.

Thus, this research aims to provide a new contribution to the human resource management and industrial psychology literature by exploring the mediating role of personality in the relationship between training, talent, and technological systems on employee competence. With a better understanding of these mechanisms, organizations can design more effective strategies for developing employee competencies, considering personality factors that influence the success of training interventions, talent utilization, and technology implementation. This research aims to contribute to the fields of human resource management and industrial psychology by investigating the mediating role of personality in how training, talent, and technological systems impact employee competence. The study seeks to enhance understanding of these mechanisms, thereby enabling organizations to develop more effective strategies for employee development that take into account personality factors influencing the success of training interventions, talent utilization, and technology implementation.

RESEARCH METHOD

This research used traditional literature review methods to collect and analyze relevant research. This approach was chosen because it allows researchers to comprehensively review and synthesize findings from various existing studies. The process begins with identifying appropriate sources of information, such as scientific journals, books and other publications. Then, a thorough search was carried out on relevant literature using various databases and digital libraries.

After relevant literature has been collected, the next step is to evaluate the quality and relevance of each information source. Researchers conduct an analysis of the strengths, weaknesses and relevance of each study included in the review. This aims to ensure that the literature used can make a significant contribution to the understanding of the topic under study.

Next, a synthesis process was carried out to integrate the findings from the reviewed literature. The researcher prepared a comprehensive and structured summary of the main themes, key findings, and patterns that emerged from the literature reviewed. Thus, the traditional literature review method provides a solid foundation for researchers to develop a deep understanding of the research topic and identify areas that require further research.

RESULTS AND DISCUSSION

The relevance researches that support this paper are elaborated in the following table:

Table 1. Relevant Literature Collected

Authors and Year	Conclusion	Method	Research Findings
(Pereira & Felicetti, 2022)	Higher education should take a central role in their learning and emphasize the	Qualitative case study	Emphasizing the value of training for professors to shift from teaching

	value of training for professors to move beyond compliance-based teaching approaches to structured activities that promote student engagement and learning.		approaches to structured activities that promote student engagement and learning.
(Jafari-Sadeghi et al., 2020)	People with higher education are more likely to have the skills and knowledge needed to become entrepreneurs. Individuals with high entrepreneurial competencies are more likely to start and develop successful businesses.	Quantitative method SEM-PLS	Education level and knowledge have a positive influence on entrepreneurial competence and international entrepreneurship. Entrepreneurial competence has a positive influence on international entrepreneurship. The level of international intensity in a country has a positive influence on international entrepreneurship.
(Fadilah, 2019)	Higher education levels and longer work experience are associated with better employee performance.	Survey method, multiple regression	There is a significant positive relationship between educational background and employee performance.
(Kulik et al., 2020)	Analyzing the concept of competency-based approach, competency, characteristic features developed, and the field of implementation of this definition in higher education. It has been established that the mission, tasks, and content of new modern education qualitatively in new conditions should focus not only on basic knowledge but also on the formation of practical-oriented skills and competencies.	Literature study	Discusses challenges in implementing PBC, such as the need to develop competency-based curricula and effective assessment.
(A. A. Ismail & Hassan, 2019; Popkova &	Training organized to improve both technical and non-technical skills. Employees can directly	Qualitative	Most technical competencies are still at an average level and require much improvement. This

Zmiyak, 2019)	improve their competencies in those specific areas.		implies that new technical knowledge should be incorporated into new technology-based curricula for their future knowledge to meet the needs of technological changes.
(Scopelliti, 2022)	Training that provides a deep understanding of the industry where employees work can enhance their competencies in understanding industry dynamics, market trends, and customer needs. This can help them make better decisions and become more effective in providing solutions to customers.	Qualitative	This study reveals that training is a promising debiasing tool. Training intervention is a breakthrough that can reduce the occurrence of several cognitive biases.
(Otoo, 2019)	Training that stimulates creativity and innovation can help employees develop new ideas and more effective solutions in their work. This can enhance their competencies in creative thinking and create added value for the company.	Quantitative SEM method	The results indicate that some HRD practices influence organizational effectiveness through their impact on employee competencies. Empirically provides evidence that employee competencies mediate the relationship between HRD practices and organizational effectiveness in the banking industry in Ghana.
(Wisittigars & Siengthai, 2019)	Good leadership training can help employees develop their leadership skills and enhance their ability to manage teams, motivate colleagues, and achieve common goals.	Quantitative	Leadership competencies in the evolving business sector in Thailand (FM) and possibly other countries in the Asia region. Leaders in FM can benefit from recognizing critical leadership competencies during crisis management.
(Qasem et al., 2021)	Training focused on developing mental resilience and adaptability to change can improve employee competencies in terms of flexibility,	Quantitative	This study recommends the need to pay attention to the professional competencies of mathematics educators at the secondary level, by conducting special in-service courses covering

	adaptability, and resilience to pressure.		theoretical and practical mathematics and education knowledge and information.
(Bani-Hani, 2021)	With this relationship, it can be concluded that strategic thinking (as a moderating variable) can have a positive effect on the relationship between talent management and core competencies.		
(Kord & Thornton III, 2020)	This research investigates the psychometric quality of a new behavior assessment method used in applied settings.	Descriptive analysis	This research contributes to a clearer understanding of expert competencies and practical methods for assessing and training these competencies.
(Jais et al., 2021)	Leadership skills competency framework: personnel effectiveness, cognition, leading, impact and influence, as well as achievement and actions. In this group, issues are identified that need to be considered when selecting future leaders in higher education institutions.	Interviews / FGDs	This study presents the talent management development process in higher education institutions. Findings from focused group discussions and interviews show five competency skill framework groups: personnel effectiveness, cognition, leading, impact and influence, as well as achievement and actions.
(Shikweni et al., 2019)	Internally drive business outcomes in line with well-crafted strategies. Regulatory frameworks should recognize the dynamics and diversity of the labor market. Internal and external should be considered.	Qualitative	The application of effective talent management practices results in talent sustainability and competitiveness. Practical / managerial implications: Two conceptual frameworks developed show: (1) key factors playing a role in talent management, and (2) the interface between talented employees and the organization.
(Younas & Bari, 2020)	TM practices: mentoring, strategic leadership, social media positively influence the intention to stay as Generation Y employees,	Variables: Talent management; generation competency	

while knowledge sharing does not significantly affect the intention to stay.	development; intention to stay

Education Level as a Foundation for Competency

Our research confirms the positive impact of education level on employee competency. Higher education equips individuals with a stronger knowledge base and skillset, as supported by Human Capital Theory (Dube, 2023). Studies by Fadilah (2019) and Jafari-Sadeghi et al. (2020) further demonstrate a correlation between educational attainment and the ability to acquire job-specific skills, including entrepreneurial capabilities. Kulik et al. (2020) highlight the value of competency-based approaches in higher education for fostering career-ready skills.

Training: Sharpening the Saw

The research overwhelmingly supports the positive influence of training programs on employee competency. Training equips employees with specific knowledge, skills, and abilities in both technical and non-technical areas, as shown by T. Ismail & Yusuf (2021) and Popkova & Zmiyak (2019). Industry-specific training enhances understanding of market dynamics and customer needs, leading to better decision-making Scopelliti (2022). Targeted training in productivity, project management, sales, creativity, and innovation can significantly boost performance (Otoo, 2019; Yimam, 2022). Leadership and mental toughness training further contribute to adaptability, resilience, and effective leadership (Qasem et al., 2021; Wisittigars & Siengthai, 2019).

Talent: The Spark of Potential

Individual talent significantly impacts various job-relevant competencies. Natural aptitude plays a role in technical skills like mathematics, programming, or graphic design (Bani-Hani, 2021). Strategic thinking talent aids in problem-solving and data analysis, while communication talent (both verbal and written) enhances clarity and persuasiveness (Kord & Thornton III, 2020). Leadership talent fosters team effectiveness, and creative talent helps develop innovative solutions (Shikweni et al., 2019). Furthermore, talents in teamwork, collaboration, and adaptability are crucial for success in modern work environments (Younas & Bari, 2020).

Technology Systems: Empowering Competency Development

Technology systems play a vital role in enhancing employee competency by providing improved access to information and resources. Knowledge management platforms and e-learning tools enable efficient knowledge acquisition and skill development (Mehmood, 2021). Online learning platforms offer structured and self-paced learning, while interactive simulations provide safe environments for practicing new skills. Technology-based performance management systems track progress and identify areas for improvement (Kucharska & Erickson, 2020). Personalized e-learning allows for targeted development of specific technical skills (A. A. Ismail & Hassan, 2019). Collaboration tools facilitate knowledge sharing and mutual learning across locations. Data analysis and AI help organizations identify learning trends and tailor training programs more effectively (Ghasemaghaei, 2019).

Personality: The Unsung Factor

Personality traits significantly influence how individuals perform their jobs. Employees with high orderliness tend to be more thorough and organized, leading to better performance

(Daniel & Santeli, 2020). Openness to experience enhances the ability to learn new skills and adapt to change, critical in dynamic work environments (Yun et al., 2020). Agreeableness fosters teamwork and a positive work atmosphere, which boosts productivity (Lee & Park, 2020). Finally, emotional stability allows employees to handle stress and pressure more effectively, contributing to overall well-being and sustained performance (Kundi et al., 2022).

CONCLUSION

Employee competency is a complex construct influenced by training, talent, technological systems, and personality. Training programs enhance knowledge, skills, and performance, while inherent talent influences learning potential and job-specific competencies. Technological systems provide efficient information access, personalized learning opportunities, and collaboration. Personality traits like orderliness, openness, agreeableness, and emotional stability shape employee behavior. Understanding these factors is crucial for organizations to design effective development programs. Future research should focus on longitudinal studies tracking employees across career stages and organizational contexts to understand the interplay of these factors.

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