



Training on Improving Human Resource Quality Amidst the Development of Online and Certified Training

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ABSTRACT

The purpose of this community service activity is to provide training on improving human resource quality amidst the development of online and certified training. This community service activity uses a training format. The training itself is provided to Indonesian workers who require online and certified training. The results of community service activities indicate that in the fast-paced digital economy, human resource quality improvement training is facing a new paradigm. The presence of online and certified training is no longer merely an alternative but has become a key pillar in talent development strategies, both at the corporate and national levels. Competency certification acts as a new currency in the global job market. Its presence provides multiple benefits for individuals and organizations, such as competency standardization, increased organizational competitiveness, and focus on future skills.

INTRODUCTION

Improving the quality of human resources is a fundamental pillar that determines the direction of progress, competitiveness, and sustainability of a nation in the era of rapid globalization. This comprehensive process focuses not only on accumulating a formal workforce but also emphasizes the fundamental transformation of cognitive aspects, technical skills, and individual moral character to enable them to adapt to modern technological disruptions (Mariani et al., 2023). The main foundation for this improvement begins with an inclusive education sector that is responsive to job market needs, where the curriculum is designed to hone critical thinking, innovation, and digital literacy skills from an early age. Through integration between education and the industrial sector, the competency gap can be significantly reduced, preparing new graduates to become productive drivers of the economy. Simultaneously, attention to physical and mental health is an absolute prerequisite, as high intellectual capacity can only be optimized if supported by optimal physical condition, freedom from malnutrition, and equitable access to quality medical services. This long-term investment in people will ultimately create a positive domino effect that can break the chain of structural poverty, encourage creativity-based job creation, and sustainably increase gross domestic product for equitable social welfare.

Improving the quality of human resources is a long-term manifesto that demands a holistic and integrative commitment from various sectors of life to create a globally competitive civilization. At its most fundamental level, this transformation must be rooted in a reform of the education system, no longer solely oriented towards textual memorization but rather focused on developing high-level analytical skills and complex problem-solving. Today's curriculum is required to be adaptive and aligned with the acceleration of artificial intelligence and industrial automation, so that every individual is equipped with relevant data literacy and technological agility. However, this intellectual intelligence will lose its direction without being accompanied by strong character development, moral integrity, and adequate emotional intelligence to collaborate in an increasingly multicultural work environment.

On the other hand, the absolute foundation for ensuring sustainable human productivity is equitable and promotive health care from the first thousand days of life through to productive age. Appropriate nutritional interventions and the provision of mental health services are crucial for maximizing the cognitive potential of the next generation without physical barriers. Once investments in the education and health sectors have been met, the government, along with the private sector, is obligated to provide a conducive labor market ecosystem through sustainable vocational training programs and skills enhancement workshops. This dynamic approach ensures that the existing workforce does not become trapped in competency obsolescence but continues to grow into innovative and creative human capital capable of driving national economic diversification toward the status of a self-sufficient, developed nation.

Human resource quality improvement training in the modern era is required to continuously transform to meet the challenges of an increasingly dynamic and competitive era. Amidst the massive development of digital

technology, conventional methods are now shifting significantly toward online-based training, which offers flexibility without the constraints of space and time. The presence of these digital platforms allows workers and job seekers to access high-quality learning materials from anywhere, allowing the competency improvement process to continue without disrupting daily productivity (Siagian et al., 2025). This phenomenon not only expands the reach of education to various remote areas but also democratizes knowledge that was previously only accessible to certain groups through expensive face-to-face courses. However, this ease of access brings new challenges related to the validity and standardization of the skills acquired by participants. To address these challenges, the integration of official certification programs has become a crucial pillar in determining the effectiveness of this online-based training. Certification acts as a quality assurance indicator and provides concrete, industry-recognized evidence that an individual has achieved a certain competency standard (Sisibintari, 2015). In a highly competitive labor market, possessing a valid certificate from a trusted institution adds significant value to one's professional portfolio. Companies now focus on more than just the duration or hours of training completed, but rather on the tangible output demonstrated by this formal recognition. Therefore, the synergy between an adaptive online curriculum and a rigorous certification system is key to producing superior, work-ready human resources capable of competing globally amidst the rapid flow of digitalization.

The purpose of this community service activity is to provide training on improving human resource quality amidst the development of online and certified training.

IMPLEMENTATION AND METHODS

This community service activity uses a training format. This community service activity is conducted entirely in the form of interactive training designed to provide in-depth understanding and practical skills for participants. Through this training format, the entire series of events is systematically structured, from comprehensive theoretical material to simulation sessions and hands-on practice in the field (Kurdhi et al., 2023). Competent instructors guide participants step-by-step, ensuring that each basic concept is well understood before moving on to more complex implementation stages. Furthermore, this training prioritizes group discussions and case studies that encourage active interaction, so that participants are not merely passive listeners but are able to analyze problems and formulate solutions independently. With a focus on improving competence and independence, this training format is expected to have a tangible long-term impact on improving human resource quality and the welfare of the target community.

The training itself is provided to Indonesian workers who require online and certified training. Independent job training now offers a strategic and adaptive solution for Indonesian workers who need to improve their competencies through a flexible online system that still guarantees quality through officially certified programs. Amidst the rapidly changing job market,

workers are required to continually update their skills to remain relevant and highly competitive. Through this digital learning method, geographical and time constraints are no longer major obstacles, as participants can access learning materials anytime and anywhere, according to their daily schedule. This significantly helps workers who must balance their time between professional responsibilities and self-development efforts. The program's primary advantage lies in the provision of widely recognized certification, which serves as valid proof of mastered new skills and increases workers' bargaining power in the eyes of national and international companies and industries (Tambunan and Pandiangan, 2024). The material taught is designed to align with the real needs of today's workforce, from mastery of digital technology and specific technical skills to crucial interpersonal skills. This online training program not only provides easy access but also builds an inclusive, lifelong learning ecosystem, ensuring that all Indonesian workers from diverse backgrounds have equal opportunities to develop, advance their careers, and contribute significantly to the nation's economic growth.

RESULTS AND DISCUSSION

The Development of Online and Certified Training

The development of online and certified training has undergone a remarkable transformation in recent years, changing the face of continuing education and professional development worldwide. Initially, online courses were often underestimated due to perceived lack of rigorous quality standards and limited interaction compared to conventional face-to-face education (Nasional, 2009). However, with the rapid advancement of digital technology, this perception has shifted dramatically. The presence of large-scale global learning platforms now offers curricula designed directly by leading universities and giant technology companies worldwide. What makes this learning model increasingly popular is the integration of official certifications that command high credibility in the eyes of the job industry. These digital certificates are not simply proof of participation but rather representations of specific competencies that have been rigorously tested, providing a powerful bargaining chip for job seekers and professionals seeking promotion.

The main factors driving the explosion in popularity of this type of training are its limitless flexibility and inclusive accessibility. In the past, geographical constraints, transportation costs, and rigid work schedules often posed significant barriers to improving their skills. Today, anyone with an internet connection can access high-quality learning materials from the comfort of their own home, adjust their learning schedule to fit their daily schedule, and complete programs at their own pace. Meanwhile, the industrial world is moving at a breakneck pace, with automation and artificial intelligence continually transforming talent needs in the job market. While formal educational institutions sometimes take years to update their curricula, online training platforms can launch new programs within weeks to respond to the latest technological trends. This curriculum flexibility makes certified online training the most adaptable solution for bridging the skills gap between education and real-world industry needs.

Furthermore, technological evolution within the platforms themselves has significantly increased the effectiveness of learning. Today's learning methods no longer involve passively watching one-way videos, but instead incorporate interactive simulations, real-world projects assessed by expert mentors, and virtual practical labs that require participants to put theory into practice (Tambunan et al., 2024; Pandiangan et al., 2023). The use of artificial intelligence technology also enables personalized learning paths, where the system can recommend additional materials based on areas of weakness detected in participants' quizzes. Corporate recognition of online certifications is also growing exponentially. Many global companies are now shifting their focus from traditional college diplomas to specific digital certifications that demonstrate job-readiness without the need for lengthy retraining. Moving forward, the synergy between evolving technology, dynamic industry needs, and formal recognition of digital certifications will ensure that online training remains a key pillar of the lifelong learning ecosystem.

Training on Improving Human Resource Quality Amidst the Development of Online and Certified Training

In the fast-paced digital economy, human resource quality improvement training is facing a new paradigm. The presence of online and certified training is no longer merely an alternative but has become a key pillar in talent development strategies, both at the corporate and national levels. Improving human resource quality in the digital era is no longer about the number of training hours employees spend, but rather about the tangible capabilities validated by certification and how these skills can drive transformation and accountability for organizational performance. Competency certification acts as a new currency in the global job market. Its presence provides multiple benefits for individuals and organizations, such as:

1. Competency Standardization

Certification provides objective assurance that an employee possesses industry-recognized capabilities, such as BNSP certification in Indonesia, or global certifications such as AWS, Google, Cisco, and SHRM. Competency standardization is a crucial pillar in the modern workplace and education system, serving as a bridge to align individual abilities with the real needs of industry (Nasional, 2009). Essentially, this concept refers to the process of formulating, establishing, and implementing standardized measures of knowledge, skills, and work attitudes that an individual must possess to effectively perform a specific job or function (Gultom et al., 2024; Hamzah et al., 2025). Through this standardization, uncertainty regarding workforce quality can be minimized because every competency certificate holder has been tested based on the same, objective parameters. At the national level, this standardization is usually implemented in the form of a qualifications framework that integrates the formal education sector with on-the-job training, so that graduates of educational institutions are not left behind when entering the dynamic industrial ecosystem. The positive impact of implementing competency standardization is extensive, felt not only by individual workers but also by corporate organizations and a

country's macroeconomy. For companies, clear standards facilitate the recruitment process, talent mapping, and the development of targeted training programs because performance benchmarks have been specifically defined. Meanwhile, for workers, standardization provides formal recognition of their skills, which in turn increases career mobility and bargaining power in the job market, both domestically and internationally. When a country successfully integrates competency standards comprehensively across key industrial sectors, its global competitiveness will significantly increase because the global market will place high trust in the quality of products and services produced by an officially certified workforce.



Figure 1. BNSP Certification in Indonesia

2. *Increased Organizational Competitiveness*

Companies supported by certified human resources have higher bargaining power in winning projects, maintaining regulatory compliance, and increasing business partner trust. Improving organizational competitiveness is a strategic and ongoing process that requires total commitment from all elements within a company or agency (Sisibintari, 2015). In the era of globalization and rapid technological disruption, organizations can no longer rely solely on conventional methods or remain in their comfort zone. To win in an increasingly competitive marketplace, organizations must formulate and execute strategies that create unique added value that is difficult for competitors to imitate. This begins with a deep understanding of market dynamics, consumer behavior, and competitor movements, which are then transformed into innovations in products, services, and internal business processes. The speed of adapting to changes in the external environment is a key determinant of whether an organization will lead the way or be left behind and forgotten. One of the most crucial pillars in boosting this competitiveness is digital transformation and the optimization of information technology. Integrating cutting-edge technology into operational systems goes beyond digitizing physical documents; it completely overhauls work processes to become far more efficient, responsive, and data-driven. By utilizing accurate data analysis, management can make strategic decisions with a high degree of precision and more measurable risks. Furthermore, automation of repetitive work processes can significantly cut operational costs while reducing the potential for human error (Tambunan et al., 2025). The cost and time efficiencies created by adopting this technology ultimately provide organizations with the flexibility to offer more competitive prices or allocate their resources to develop

other innovative aspects. However, even the most sophisticated technology will not deliver optimal impact without the support of qualified human resources. Investment in employee capacity development, competency, and well-being is the key capital that will drive all the wheels of innovation within the organization. An adaptive, collaborative, and learning-driven work culture must be deeply instilled so that each individual feels fully responsible for collective progress. When employees are given the space to be creative, share new ideas, and continually hone their skills, organizations automatically gain greater flexibility in the face of market volatility. Organizational leaders play a crucial role in creating this inclusive environment, where strategic vision is communicated transparently to unify perceptions and ignite team spirit.



Figure 2. Organizational Competitiveness

3. *Focus on Future Skills*

Current certification trends are highly oriented towards future needs, such as data analytics, green economy management, cybersecurity, and digital transformation. The focus on developing future skills has shifted from simply a career choice to an absolute necessity in facing the radically transforming industrial landscape (Siagian et al., 2025). Amidst massive automation, artificial intelligence, and the integration of digital technology into various sectors, conventional technical skills are no longer sufficient to guarantee one's professional sustainability (Pandiangan et al., 2025). This transformation requires every individual to actively master new skills centered on high adaptability, strong data literacy, and the ability to solve complex problems that cannot be solved by computer algorithms. Future skills are no longer about how much information can be memorized or how routine a task can be replicated, but rather about how an individual is able to synergize emotional intelligence, critical thinking, and creativity to produce innovations that have a real impact on the organization and the wider community. Furthermore, investing in personal capacity relevant to the demands of today plays a crucial role in determining the competitiveness of the workforce at the global level. Modern companies and institutions now tend to prioritize talent with high learning agility and the ability to collaborate in dynamic and multicultural work environments. As repetitive

administrative and operational functions begin to be taken over by machines, the unique value of humans lies in their capacity to lead with empathy, communicate strategically, and make ethical, data-based decisions. Therefore, shifting the focus from merely pursuing formal academic degrees to mastering adaptive future competencies is the most effective strategy for not only surviving, but also thriving and leading amidst global economic uncertainty.



Figure 3. Data Analytics

CONCLUSION

The results of community service activities indicate that in the fast-paced digital economy, human resource quality improvement training is facing a new paradigm. The presence of online and certified training is no longer merely an alternative but has become a key pillar in talent development strategies, both at the corporate and national levels. Competency certification acts as a new currency in the global job market. Its presence provides multiple benefits for individuals and organizations, such as competency standardization, increased organizational competitiveness, and focus on future skills.

RECOMMENDATION

As a key strategic step, organizing organizations or institutions should not simply move conventional classroom materials into the digital space but rather redesign the curriculum to make it more interactive and learner-centered. This approach can be realized through the implementation of blended learning methods that combine the flexibility of self-paced online materials with interactive synchronous sessions for discussion, problem-solving, and real-life case studies. Furthermore, investing in user-friendly technology infrastructure and a stable learning platform is a crucial foundation for ensuring the knowledge transfer process runs smoothly without significant technical obstacles. Furthermore, the rise of certified programs demands strict material quality standards so that graduates have a competitive edge recognized globally and by local industry. Therefore, another important recommendation is to establish strategic partnerships with official, highly credible certification bodies or relevant industry associations. This alignment ensures that each module taught remains relevant to current job market needs and applicable competency

standards. To support the success of this scheme, it is also important to equip mentors or instructors with strong digital facilitation skills and a deep understanding of competency-based evaluation.

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