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Unemployment Dynamics in the Digital Era: A Descriptive Qualitative Analysis from a Human Resource Management Perspective

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Abstract. The development of the digital era, marked by the Industrial Revolution 4.0, has not only opened up many new job opportunities but also created serious challenges in the form of increasing poverty. This condition is most pronounced among the younger generation, who are still struggling to adapt to the demands of digital skills. This study seeks to understand the causes of poverty in the digital era, its impact on the workforce, and human resource management (HRM) strategies that can be implemented to overcome it. Using a qualitative descriptive approach, data was collected through interviews, observations, and documentation studies, then analyzed using the Miles and Huberman model. The results confirm that the skills gap and the mismatch between educational graduates and industry needs are the main factors. However, the digital era also opens up new opportunities through the gig economy and the creative sector. This study suggests the importance of upskilling, reskilling, and collaboration between the government, the educational sector, and companies to better prepare the Indonesian workforce for competition.

Keywords: Unemployment; Digital Era; Human Resources; Upskilling; Reskilling.

A. INTRODUCTION

In the context of human resource management (HRM), this challenge is crucial because organizations are required not only to find a workforce that meets their needs but also to develop upskilling and reskilling strategies to enable the workforce to adapt to change. According to Audia (2022), HRM is a strategic approach that views human resources as a measurable asset that must be skillfully managed and motivated to become the primary driver of the organization. Meanwhile, according to Rivai (2020), HRM is a function within an organization that manages aspects such as staffing, training, development, motivation, and maintenance of human resources to increase organizational effectiveness and efficiency. This digital transformation creates new opportunities while simultaneously posing the threat of the loss of many conventional jobs to technology. This condition has a direct impact on increasing the number of attritions, especially for workers who do not yet possess digital competencies.

This phenomenon demonstrates that employment issues in the digital era are not simply a matter of job availability, but also the readiness of human resources to address shifting skills needs. In Indonesia, unemployment remains relatively high and is dominated by the young, productive age group, which should be the driving force of development. Minister of Manpower Ida Fauziyah stated that one of the main causes is the scarcity of digital talent in Indonesia, reflected in Indonesia's low digital competitiveness ranking according to the 2021 World Digital Competitiveness Report. Meanwhile, an International Labour Organization (ILO) report also confirmed that the mismatch between workforce skills and industry needs is a significant factor in the rise in unemployment in many developing countries, including Indonesia. The Director of Manpower at Bappenas, Nur Hygiawati Rahayu, even emphasized that more than one million graduates in Indonesia are currently unemployed, so upskilling and reskilling must be a long-term development priority. Based on 2024 data from the Central Statistics Agency (BPS), the open unemployment rate in Indonesia remains at around 5.2%, dominated by the young, productive age group.

From a human resource management (HRM) perspective, this issue demands adaptive strategies to ensure a competitive workforce. Dr. Josh Bersin, a global HR expert, emphasized that companies that invest significantly in upskilling and reskilling programs have been shown to have higher productivity and improved employee retention rates. This aligns with the World Economic Forum's Future of Jobs Report 2023, which estimates that 44% of workers' core skills will change in the next five years. Therefore, companies, educational institutions, and governments need to work together to develop a workforce with digital skills and adaptive competencies to compete in the modern job market.

Based on these conditions, this study focuses on exploring the factors causing unemployment in the digital era, analyzing its impact on the workforce, and describing human resource management strategies that can be implemented to address this challenge. The main questions posed in this study are how the phenomenon of unemployment in the digital era occurs and what HRM strategies are most effective in responding to it. This research is expected to provide theoretical contributions to the development of HRM science and serve as a practical reference for companies, educational institutions, and governments in preparing a competitive workforce in the digital era.

B. LITERATURE REVIEW

The phenomenon of unemployment has long been a central issue in economic and labor studies. According to Todaro and Smith (2020), unemployment occurs when workers who are ready and able to work do not find suitable employment opportunities. In the digital era, unemployment is not only related to limited job opportunities but also to the skills mismatch between graduates and industry needs.

A 2021 report from the International Labour Organization (ILO) emphasized that digital transformation is driving the emergence of new jobs in the technology sector, while

simultaneously shifting traditional jobs. This requires new skills such as digital literacy, data analysis, creativity, and the ability to adapt to technology-based work systems. The World Economic Forum, in its Future of Jobs Report (2023), even estimates that around 44% of workers' core skills will undergo significant changes in the next five years, making reskilling and upskilling key strategies in addressing disruption.

From a human resource management perspective, unemployment in the digital age can be understood through the human capital theory proposed by Becker (2011). This theory emphasizes the importance of investing in education and training as a key factor in increasing workforce productivity. In practice, companies are required to manage talent, provide digital training, and encourage the development of technology-based competencies. Bersin (2022) adds that organizations that focus on upskilling and reskilling programs have proven to have a competitive advantage, both in employee retention and productivity.

Previous research also demonstrates the relevance of digital skills to job creation. For example, a study by Rahman and Sari (2022) revealed that digital skills are a dominant factor in companies' recruitment processes, while workers who lack these skills tend to be marginalized. Similarly, research by Handayani (2023) found that young people in Indonesia still face a digital literacy gap, making it difficult for many college graduates to compete in the job market.

Based on this literature, it can be concluded that unemployment in the digital age is not solely caused by limited job opportunities, but rather by a skills gap that necessitates adaptive human resource development strategies. Therefore, this study focuses on exploring the causes of unemployment, its impact on the young workforce, and HR strategies that can be implemented through upskilling and reskilling as solutions to address employment challenges in the digital age.

C. RESEARCH METHODOLOGY

This research uses a qualitative approach with a descriptive design. This approach was chosen because it aligns with the research objectives, namely to explore in-depth the phenomenon of poverty in the digital era and applicable human resource management strategies. According to Creswell (2018), qualitative descriptive research aims to understand the meaning of social phenomena from the perspective of research participants through narrative data collection.

The subjects of this study were selected purposively, based on specific considerations relevant to the research needs. The informants comprised three groups: job seekers of productive age who are currently unemployed, HR practitioners or HR managers from companies implementing digitalization, and government officials or training institutions involved in developing workforce policies. By selecting diverse informants, it is hoped that this study will provide a comprehensive overview of unemployment issues in the digital age.

Data collection techniques included in-depth interviews, observation, and documentation studies. Interviews were used to elicit subjective perspectives from informants regarding their experiences facing the challenges of the digital workplace. Observations were conducted on relevant activities, such as digital-based recruitment processes or technology-based job training. The documentation study included analysis of official reports from the Central Statistics Agency (BPS), the Ministry of Manpower, the World Economic Forum, as well as related scientific articles and news. Based on BPS data from 2024, the open unemployment rate in Indonesia remains at around 5.2%, with a predominance among the young, productive age group.

The data obtained were analyzed using the Miles, Huberman, & Saldana (2018) model, which includes three main stages: data reduction, data presentation, and conclusion drawing. In the data reduction stage, researchers sorted data according to the research focus. Next, the data was presented in descriptive narrative form, making it easier for researchers to

understand patterns and relationships between variables. The final stage was drawing conclusions based on field findings linked to theory and previous research.

To ensure data validity, this study employed source and method triangulation techniques. Source triangulation was conducted by comparing data from various informants, while method triangulation was conducted by combining the results of interviews, observations, and documentation. This step increased the reliability of research results and minimized data bias.

D. RESULTS AND DISCUSSION

Factors Causing Unemployment in the Digital Era

Interviews with productive-age job seekers indicate that one of the main causes of unemployment is a mismatch between skills and industry needs. Several informants stated that even though they are college graduates, companies are increasingly seeking workers with applicable digital skills, such as data analytics, digital marketing, and coding. This aligns with a 2021 report from the International Labour Organization, which emphasized that skills mismatch is a serious challenge in developing countries.

Furthermore, informants from HR practitioners stated that low digital literacy among the workforce makes online recruitment processes a challenge. Many applicants are unfamiliar with using digital platforms, for example, when creating online CVs or navigating technology-based selection processes. This finding corroborates research by Handayani (2023), which demonstrated a digital literacy gap among Indonesia's younger generation.

The Impact of the Digital Era on Young Workers

Informants from job seekers' groups revealed that unemployment in the digital era results in psychological stress, decreased self-confidence, and difficulty adapting to rapid changes in the world of work. From an economic perspective, they experience limitations in accessing a decent income, with some even turning to informal work or the gig economy, which does not guarantee long-term security.

On the other hand, the digital era also opens up new opportunities through freelance platforms and the creative economy. However, not all workers are able to capitalize on these opportunities due to limited digital skills. This aligns with the World Economic Forum's (2023) report, which emphasizes the importance of adapting human resources to changes in the global work structure.

Human Resource Management Strategies to Address Unemployment

The HR practitioners interviewed emphasized the importance of upskilling and reskilling programs in addressing the challenges of digital unemployment. Several companies have begun implementing technology-based training, such as in digital marketing, data management, and the use of analytical software. These programs have been proven to help employees adapt to new job demands. Furthermore, synergy between companies, the government, and educational institutions is considered crucial. The government, through the Ministry of Manpower, has launched the Pre-Employment Card program, which focuses on digital training. Educational institutions are also required to update their curricula to align with industry needs.

This is consistent with Bersin's (2022) view, which asserts that organizations that seriously invest in developing their employees' digital skills will gain a competitive advantage. According to Statistics Indonesia (BPS), the open unemployment rate in Indonesia remained at around 5.2% in 2024, dominated by young, productive age groups. These findings demonstrate that human resource management strategies should not be confined to recruitment alone; they must also encompass career development and ongoing training. This approach can minimize the challenges of unemployment in the digital age while simultaneously opening up new opportunities for the workforce to thrive.

E. CONCLUSIONS AND SUGGESTIONS

The results of this study indicate that unemployment in the digital age is not solely caused by limited job opportunities, but rather by a skills mismatch between the workforce and industry needs. The digital era demands mastery of new skills such as technological literacy, data analysis, creativity, and adapting to digital-based work systems. However, a large portion of the workforce, especially the younger generation, still faces limitations in these areas, making it difficult to compete in the modern job market.

The impact of this situation is not only felt economically but also affects the social and psychological well-being of workers, such as decreased self-confidence and increased vulnerability to informal employment with no long-term security. However, the digital era also brings new opportunities through the emergence of jobs in the creative sector, the gig economy, and digital platforms, provided the workforce is able to adapt to the required skills.

From a human resource management (HRM) perspective, a viable strategy to address digital unemployment is to strengthen upskilling and reskilling programs. Companies need to be more proactive in providing technology-based training for both employees and prospective workers. The government and educational institutions are also required to collaborate in updating curricula and designing job training policies that align with developments in the digital industry. Therefore, digital transformation is not merely a threat but can be leveraged as an opportunity to increase the competitiveness of the Indonesian workforce.

Based on these conclusions, the following recommendations can be made: first, the government needs to expand access to more affordable digital training for the wider community, especially the younger generation of job seekers. Second, higher education institutions must reform their curriculum by emphasizing practical skills relevant to the needs of the digital industry. Third, companies need to make digital skills development an integral part of their HR strategy to maintain competitiveness and address workforce disruption. With synergy between the government, education, and industry, unemployment in the digital era can be reduced and the quality of Indonesia's human resources can be improved.

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