Human Resource Management In The Elemental Environment Challenges And Opportunities In The Digital Era

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Abstract; The emergence of the Industrial Revolution 4.0 era, characterized by the rapid development of digital technology, robotics, and artificial intelligence, has created profound transformations in various aspects of life, including the world of higher education. This era encourages society and educational institutions to innovate and change in order to keep in touch with the times. While this era brings significant progress, it also brings negative impacts that need to be considered by higher education institutions and society in general. Over time, higher education institutions undergo various changes, and this is also the case with UNSURYA. This article will discuss the changes and challenges faced by this faculty in facing the Industrial Revolution 4.0 era. Human Resource (HR) management in the context of higher education institutions such as Surya University (UNSURYA) faces significant challenges and opportunities in the digital era. The digital era has changed the landscape of higher education, forcing universities to adapt to technological changes and the expectations of an increasingly digital society. This article will discuss the challenges faced in developing Human Resource (HR) competencies in the digital era, strategies that organizations can adopt to improve their HR competencies, as well as the role of government and educational institutions in ensuring the improvement of these HR competencies.

Keywords: Human Resources, Opportunities, Challenges, Digital Age

INTRODUCTION

Human resource management involves a wide range of functions and scope. The role of HR in the implementation of the human resource management function has a strategic level. This shows that the role of HR is not limited to administrative aspects alone, but HR, in its current role, reflects the function of human resource management as a strategic partner who has an important role as a driver of change in the institution.

The purpose of developing human resources, especially lecturers, is to achieve the organizational goals of higher education. Success in achieving these goals will be optimal if

leaders and implementers, in this case lecturers, have the appropriate qualifications and perform according to predetermined standards. College leaders and lecturers need to have abilities and performance that meet the required standards, in accordance with the principles and philosophy of management. Therefore, continuous improvement is an important need.

LITERATURE OVERVIEW

Human resources are all humans involved in an organization in seeking the realization of the organization's goals. According to Ndraha (1999) cited in Sutrisno (2009:4), high-quality human resources are individuals who have the ability to create value not only comparatively, but also by creating competitive value, generative value, and innovative value. They achieve this by utilizing their highest potential, such as intelligence, creativity, and imagination, rather than relying solely on brute resources such as raw materials, land, physical labor, and the like. Human resources are defined as the potential that exists in humans that can be utilized by organizations. With this definition, human resources are individuals who have resources and are power.

The era of globalization is a period that all countries are currently facing. It is a period in which the world is becoming more and more open, and this demands that human resources must become more aware of such openness, as well as realize their rights and obligations as cultured citizens. The impact of global culture, whether we realize it or not, will at some point affect every country in the world, including Indonesia. Therefore, whatever elements are contained in this global era, it demands a country's readiness to deal with it, especially through the readiness of its human resources. Advances in science and technology, which are the hallmarks of the globalization era, will change very quickly the way and lifestyle of humans, from prehistoric society to postindustrial society (Hidayat, 2021).

Such conditions clearly demand that a country must prepare its human resources, especially through education. In looking at the phenomenon of education currently run by the Indonesian government, education reform needs to be carried out. This reform aims to create an education system that is able to produce Indonesian human resources that can compete globally in the 21st century or the third millennium era which is characterized by intense global competition. If education reform is not a priority in preparing superior human resources, then Indonesia will continue to lag behind other countries in the world. Therefore, it is important for the Indonesian government to give greater attention to education in its ongoing development efforts. It is a vehicle for preparing human resources.

A sign that Indonesia is not ready to compete in the global world can be seen from the lack of competitiveness of human resources, as expressed by Boediono (1997:82) in Suyanto and Hisyam (2000:3). He stated that when it comes to our ability as a nation, it seems that we are not really ready to face competition in the third millennium. Technological advances that are heading in an increasingly digital direction are currently experiencing very rapid development. In today's digital era, people are generally adopting a new lifestyle, which is highly dependent on the use of various electronic devices. Technology has become a tool that can fulfill most human needs. Humans can now utilize technology to simplify the execution of various tasks and jobs. The main role of technology is what has brought human civilization into the digital era.

The digital age has brought about a number of positive changes that can be put to good use. However, over time, the digital era has also brought a number of negative impacts

that have become challenges for human life in this era. Challenges in the digital era have spread to various fields, including politics, economy, socio-culture, defense, security, and even in the development of information technology itself (Subianto, 2000).

The challenges faced in improving the competence of human resources (HR) in the digital era are increasingly complex and diverse. Many human resources currently do not have adequate digital skills, including in terms of data processing, project management, and mastery of specialized software. Work that was previously done manually is now often automated or supported by technology. Therefore, learning is required by HR to master how to work with new technologies and adapt their tasks and roles within them. In addition, continuous technological developments can also replace some of the work previously done by humans, so HR must be able to master new skills to remain relevant in an increasingly competitive work environment (Apriliana and Nawangsari, 2021).

In the view of Damingun (2017), currently, in the face of global business competition, human resource management must focus on increasing employee competence and expertise in their fields. The development of HR competencies, both in terms of soft skills, hard skills, social skills, and mental skills, has become a key element in improving individual and organizational performance in the era of global competition.

Digital transformation in Indonesia must be able to produce various innovations in learning. Innovations in various disciplines are causing changes in the global society. Although, in general, these innovations bring positive developments, they also bring negative impacts on institutions and society. This encourages all parties to create breakthroughs in order not to be left behind and avoid setbacks. This also applies to the world of higher education. Higher education needs to adapt to the changing times which includes the ever-changing regulations. In the world of Indonesian higher education, there are various advances. First of all, the emergence of the Industrial Revolution 4.0, which is driven by advances in the digital world. This revolution is characterized by the increasing use of artificial intelligence in industrial processes, such as robots that have the ability to learn new things without special input from operators. The existence of robots increases production efficiency, also reducing dependence on human labor (Suryatni, 2014).

Higher education HR management also has a role in motivating lecturers, guiding them to face challenges, and helping them live more meaningful and valuable lives, both for themselves, those around them, and the environment in which they work. Thus, the existence of lecturers wherever they are is still considered a source of inspiration and light for the surrounding community. Lecturers are valued by society as a noble profession, as educators who have knowledge, wisdom, and high intellect. Universities that do not pay attention to or anticipate the development of the current era will face the risk of being left behind and disrupted. In this journal, the actions taken by UNSURYA in facing these challenges and opportunities will be explained, described, and analyzed.

RESEARCH METHODS

This research uses a qualitative approach with analytical descriptive principles which is a method that aims to analyze and explain events or problems that are happening based on the latest and relevant literature. The type uses a case study. To obtain in-depth data, case study research uses in-depth interview techniques, observation, as well as documentary studies which will then be analyzed into a theory. This approach was chosen to examine challenges related to the competence of human resources (HR) in facing the digital era based on relevant sources.

RESULTS AND DISCUSSION

The digital revolution is the shift from mechanical and electronic analog technology to digital technology that started in 1980 and still continues today. Initially, it was probably

started by the generation born in the 1980s. Like the agricultural revolution and the industrial revolution, this digital revolution marked the beginning of the information age. This change has transformed one's outlook towards life in this highly advanced era. This technology has made a huge impact around the world, facilitating various aspects of life while creating challenges due to the increasingly sophisticated use of digital technology.

The development of technology in the era of Industrial revolution 4.0 and Society 5.0 demands high proficiency and competence. This era involves sophisticated and widespread integration of technology and the internet, which necessitates behavioral changes in higher education and industry. Features in both eras include digitization, optimization and customization of production, automation, human-machine interaction, ancillary and business services, automated data exchange and communication, and the use of information technology. Therefore, education and industry should develop industrial transformation strategies with attention to human resource competencies in these areas.

Stewart (2007, page 410) argues that in general, human resource development can be defined as a series of technical activities that aim to support the achievement of the organization's strategic goals. The goal is to improve the knowledge, skills, and competencies of employees in achieving performance in accordance with organizational goals. The opinion emphasizes that HR development not only serves as support for organizational strategy, but has become an integral part of the organization's own strategic goals. Therefore, HR development is considered a very important strategic issue.

The concept of HR management in higher education can be interpreted as an effort to plan, organize, mobilize, and evaluate human resources in higher education with the aim that they can make a maximum contribution to the development of higher education and the achievement of work programs and plans. The study of human resource management in higher education is an inseparable part of the context of human resource management that has developed, which specializes in human resource management, especially in the university environment.

The Minister of Research, Technology and Higher Education, Mohammad Nasir, said that the challenges of the Industrial Revolution 4.0 must be responded to quickly and appropriately by all parties in higher education so that Indonesia can compete effectively. Therefore, higher education needs to formulate strategic policies in various aspects, including institutions, fields of study, curriculum, resources, technology-based university development, and innovation (Mulyono, 2016).

The challenges of HR competencies in the digital era reflect the huge influence that current technological developments have had on the way people work and live. This situation brings new challenges for organizations in managing human resource competencies to match the demands of the digital era. As stated by Adiawaty, S (2019), the world of work is currently facing new challenges in the Industrial 4.0 era which is characterized by ever-growing digitalization. Therefore, universities, especially those that focus on human resources, must immediately anticipate these changes. The development of skills and competencies in the field of human resources is a factor that must be given attention and continuously improved by company leaders in accordance with the growing needs in the increasingly rapid Industry 4.0, because the sustainability of the company depends on the competence of the people who make decisions.

One of the key steps that universities must take is to improve campus data management and efficient information communication for the benefit of education and students. With a reliable information system, competitiveness against competitors will increase, and universities will be more attractive to prospective students. Technological advances in the era of Industrial Revolution 4.0 and Society 5.0 require strong skills and competencies. This is because this era involves a highly advanced and widespread incorporation of technology and the internet, which demands changes in behavior in higher education and industry (Muslimin, 2019). The characteristics of these two periods include digitization, optimization and adjustment of production, automation and adaptation,

interaction between humans and machines, enhancement of service and business value, automated data exchange and communication, and the use of information technology. Therefore, the education and industry sectors must have the ability to develop industrial transformation strategies that take into account human resources who have competencies in this area.

One of the key actions that universities need to take is to improve campus data management and efficient delivery of information to the education community and students. With a reliable information system, this will increase competitiveness against competitors and also increase attractiveness for prospective students.

Dr. H. Dadang Solihin, SE.M.A, in his speech during the XIII Master, Bachelor, and Associate Expert graduation ceremony at ABC University, highlighted that industrial and technological progress is taking place rapidly around the world. Klaus Schwab, in his book entitled "The Fourth Industrial Revolution" (2017), pointed out that the fourth generation in the industrial revolution is characterized by the emergence of supercomputers, intelligent robots, autonomous vehicles, genetic engineering, and the development of neurotechnology that allows humans to improve their brain function. Changes triggered by innovations in science and technology can also occur in the higher education environment. Developed countries, which have been the center of scientific and technological development, have realized this change. Therefore, this condition needs to be faced by the higher education system in Indonesia. Universities must recognize the threat of disruption and make changes and adjustments to their role in education.

Universities should be able to identify the challenges they will face in the future early on. At the very least, they need to conduct long-term projections for the next 15-30 years to understand changes in people's behavior. Together with the community, universities must have the capacity to overcome various challenges that arise, including the problem of population growth. One of the challenges to be faced is how universities can respond to the challenge of equitable access to education, especially when there are significant geographical barriers and social disparities in the country (Ansharullah et al., 1996).

The next challenge is how universities can play an active role in solving national problems. This is made more complex by the advancement of digital technology and the presence of artificial intelligence that has transformed data into information that is easily accessible and affordable to the public. In the face of these challenges and changes, universities continue to be tested to maintain their leading role in education, development and dissemination of knowledge to society.

Human resource management in higher education is an effort to plan, organize, mobilize, and assess human resources in higher education, with the aim that they can make a maximum contribution to the development of higher education and the achievement of programs and work plans that have been set. The study of human resource management in higher education is an integral part of the context of human resource management that has developed and focuses on managing human resources, especially in higher education. The concept of HR management in higher education includes concepts, realities, and ideas that involve the campus community and the individuals involved. Human resource management in higher education emphasizes the complex aspects of a lecturer's role as an ordinary individual and member of an intellectual community that can be explored in the context of scientific and cultural research.

Human resources refer to individuals who are willing, ready, and able to contribute to achieving organizational goals. Here, organizational goals not only refer to the management of human resources in various fields such as industry, politics, or government, but also include higher education, both in scientific and cultural contexts known as the concept of higher education human resource management.

HR development practices, especially in higher education, are not yet fully in line with the development of knowledge that has been researched by the institution. Knowledge and understanding of the concept of HR in higher education is still lagging behind when

compared to the practices that occur in the field. This means that only a small number of higher education institutions actually apply their understanding of HR in actual practice. HR-related practices in higher education, such as the management of HR activities, are still lagging behind compared to HR development practices in profit-oriented organizations, which tend to focus more on HR theory than its application in daily practice.

Human resource development in organizations is a must because it must adapt to the demands arising from dynamic environmental changes, technological advances, and ongoing business competition. Hasibuan (2010, page 75) reveals that "the increasing importance of employee development occurs in response to the increasingly high job or position requirements, caused by technological advances and increasingly fierce competition among similar companies."

According to Hasibuan (2010, pages 70-72), the objectives of human resource development are:

a) Increase work productivity.
b) Increase efficiency.
c) Reduce damage.
d) Reducing employee accident rates.
e) Improve better service.
f) Improve employee morale.
g) Increase opportunities for career advancement.
h) Improve technical skills, interpersonal skills and managerial skills.
i) Improve a manager's leadership ability.
j) Increase rewards that contribute to improved job performance.

HR management in higher education is a challenge and an important need for higher education and its stakeholders. The main focus of HR management in higher education is to manage the potential of the lecturers while trying to minimize any weaknesses that may exist. Thus, HR management in higher education aims to produce professional lecturer profiles in accordance with their duties in carrying out the Tri Dharma of Higher Education. Lecturers are not only expected to have expertise in delivering lecture materials, but are also expected to be researchers who conduct scientific research and make intelligent contributions in community service.

Siagian (2008; pages 25-26) reveals that one of the challenges that will be faced by organizations or institutions in the future, including universities, is to create organizations or institutions that are increasingly diverse in structure. However, along with that, there is a demand to have increasingly efficient, effective, and productive management. It is important to understand that organizations will increasingly rely on high-quality human resource management. While it is important to still pay attention to the management of other organizational resources, there is no denying that the main attention should be focused on human resource management. To achieve this, it is necessary to raise awareness about the purpose of all human resource management activities, which is to increase the contribution of human resources to the success of the institution.

Challenges in human resource management in higher education, which emphasize the goal of forming individuals with morals and character, require universities to build a strong foundation by prioritizing the formation of lecturer characters who practice academic ethics characterized by rationality, objectivity, and moral norms. This academic ethics must be a very important part in dealing with social, economic, political, cultural, and scientific and technological developments. Therefore, in addition to individual responsibility in emphasizing professional competence, honesty, integrity, and objectivity, universities as institutions must also be able to explain and account for themselves to the community, uphold human dignity and rights, and act as a source of reference for noble Indonesian culture. In facing the challenges of human resource management in higher education, there is a need to achieve status as a world-class university with several necessary approaches (Prawirosentono, 1999).

Human Resource Management (HRM) at Surya University (UNSURYA) faces significant challenges and opportunities in today's digital era. The digital era has changed the landscape of higher education, encouraging universities like UNSURYA to continue to adapt to technological changes and the demands of an increasingly digital society. In addition to the challenges faced, the digital era also opens up new opportunities to improve the quality of education and human resource management. In this article, we will discuss the challenges and opportunities faced by UNSURYA in managing human resources in the digital era.

HR Management Challenges in the Digital Age
1. Digital Skills Demands: The digital era requires UNSURYA lecturers and staff to have strong digital skills. They need to understand the latest technology, data analysis, and the use of educational software. The challenge here is to ensure that all members of the academic team possess these skills or have access to the necessary training.
2. Efficiency and Administration: While technology can improve efficiency in university administration and operations, challenges arise in integrating a unified university management system. Ensuring all departments and units communicate well through digital platforms is a challenge in itself.
3. Student Experience: Improving the student experience is an important goal for UNSURYA. However, in the digital age, challenges arise in providing adequate online services and support. Students must have easy access to digital resources and appropriate academic support.
4. Digital Security and Ethics: Protection of data and personal information of students and staff is one of the major challenges. UNSURYA must ensure that their systems are secure from cyber threats and follow strict digital ethics.Kemitraan dengan Industri: Era digital memunculkan kebutuhan untuk mengembangkan kemitraan dengan industri dan perusahaan terkait. Menyesuaikan kurikulum dan pelatihan dengan kebutuhan pasar kerja adalah tantangan yang harus diatasi.
5. Evaluation and Feedback: In using technology in education, UNSURYA should regularly evaluate its effectiveness and listen to feedback from students, staff, and lecturers. The challenge here is to integrate changes based on such feedback.
6. Mental Wellbeing: The stressful digital age can affect the mental well-being of students and staff. UNSURYA should ensure that there are resources and support available for mental wellbeing.
7. Ethical Challenges: The use of technology also presents ethical challenges, such as privacy and data security. UNSURYA should have appropriate policies in place and ensure that all members of the college community understand digital ethics.

HR Management Opportunities in the Digital Age
1. Flexibility of Education: The digital age allows UNSURYA to offer more flexible education. They can provide online courses and digital resources that students can access from anywhere.
2. Improved Quality of Learning: The use of technology in education can improve the quality of learning. UNSURYA can use digital learning platforms to provide interactive experiences and personalized learning.
3. Access to Digital Resources: UNSURYA students and faculty can access rich digital resources, such as digital libraries, online scientific journals, and data-driven learning platforms.
4. International Collaboration: The digital age allows for easier international collaboration. UNSURYA can partner with other universities and institutions around the world for knowledge exchange and joint research projects.
5. Educational Innovation: UNSURYA can use technology to create innovations in education.

CONCLUSION

The digital age has led to major changes in the world of work, increasing the demand for higher HR competencies. Traditional skills such as communication, teamwork and decision-making remain relevant, but must now be augmented with technological skills such as data analysis, app development and digital marketing. Entering the Society 5.0 era, universities face a major challenge in how they can compete with the digital society that requires fast and accurate education services. In addition, universities also face highly competitive competition. The keywords that must be applied by all universities in order to survive in this digital revolution era are adaptation and continuous transformation.

Universities like UNSURYA need to adapt to technological changes and the demands of a digital society that expects faster and more accurate educational services. In addition, competition in the world of education is also getting tighter. To face these challenges, UNSURYA needs to continue to develop HR competencies, utilize technology wisely, and improve efficiency in human resource management. In addition, it is also important to maintain integrity, academic ethics, and moral values in education, along with the development of technological capabilities. With these steps, UNSURYA can take the opportunities that exist in the digital era to improve the quality of education and provide better services to the community.

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