HUMAN RESOURCES DEVELOPMENT EFFORTS IN FACING THE SOCIETY 5.0 ERA IN INDONESIA

Rizaldi Azhar[a*]

[a]STMIK LIKMI, Bandung, Indonesia

[*]Corresponding Author: rizaldi.azhar89@gmail.com

Abstract. The quality of human resources is important in reducing the unemployment rate, since Society 5.0 aims to make people able to enjoy life to the fullest by utilizing technological advances, which has an impact on increasing economic growth. This article aimed to examine the Efforts to Develop Human Resources in Facing the Era of Society 5.0 in Indonesia by improving educational quality as a way of preparing the millennial generation for the era of digital transformation. The research method employed in this article was a qualitative method with a literature review. According to the findings of the study, in order to create professional and competent human resources in the period of society 5.0, it is necessary to improve the quality of education, involve the millennial generation, and also collaborate with the government and the business sector. It is expected that through adjusting to the changes and advancements of the times, Indonesia's human resources will have superior knowledge and abilities in the field of information technology in the future. This is useful for improving human resource competitiveness at multiple levels, including locally, nationally, and worldwide.

Keywords: human resources, society 5.0, millennial generation

I. INTRODUCTION

Currently, we are living in a society with all-digital knowledge, where learning begins at a young age, either formally through school or informally through other life contexts. It is undeniable that the existence of new technology with a significant digital component weight has also been present in various fields of society. Starting from the widespread digitalization in the processing, dissemination and conservation of information in its various modalities, to the development of coding (software) activities as the main activity in the development of the economic system. In addition, there is extensive access to global information networks, with interactive functions and multimedia content, driving innovation processes in terminal equipment, new software development and database creation and updating. Digital technology processes form the basis of the ongoing shifts in product and system design and development processes, as well as in education and entertainment services [1].

Indonesia has implemented Industry 4.0 for almost nine years, but its implementation is still considered relatively slow. The government strives to continue to encourage the improvement of the quality of human resources through the support of adequate education and infrastructure. The same is true in the manufacturing industry. Indonesia still tends to import goods from abroad, especially from China. Whereas this country has moved very rapidly in terms of economy and distribution and manufacturing. Indonesia is expected to start reducing imports of goods, trying to create and create goods that can penetrate the global market [2].

In the face of increasingly massive technological developments, the contribution of Human Resources with qualified abilities and skills is needed. The high quality human resources needed are obtained through a process, so education and training programs are needed to prepare and develop the quality of human resources in accordance with social change. In the era of globalization, there are three requirements for human resources in education, namely: superior human resources, human resources who continue to learn, and human resources that have local wisdom values. These three requirements can be achieved through the development of quality human resources [3].

Human resources play an important role in reducing the unemployment rate, considering that Society 5.0 seeks to make people able to enjoy life comprehensively, technological progress and economic growth can be created in that direction. Therefore, this gap must be reduced by improving the quality of life of the community in general. Although the road map comes from Japan, this concept must be able to solve HR problems facing the industrial revolution 4.0. In relation to these challenges, digital creativity is increasing slightly at a very essential stage. The Industrial Revolution 4.0 in Society 5.0 needs to pay attention to the human aspect when it is aimed at changing the millions of data collected through the internet in all areas of life. The Indonesian millennial generation has a strategic role as a community that implements the roadmap. The millennial generation must be ready to face Society 5.0 in Indonesia by utilizing quality human resources in competitive social transformation by prioritizing teamwork or collaboration [4].

Based on the urgency and relevance of developing Human Resources in facing the Society 5.0 era, this study

aims to analyze more deeply about Human Resource Development Efforts in Facing the Society 5.0 Era in Indonesia through improving the quality of education as a form of strengthening the millennial generation in facing the era of digital transformation **[5]**.

II. RESEARCH METHODS

The research method used in this article is a qualitative method with a type of literature review or what is known as a literature review. Relevant literature review is very important to review all disciplines. This is because researchers can start by describing previous research to map the results of research studies **[6]**. The data collection technique was carried out by literature study, namely reviewing and comparing library sources to obtain theoretical data. Once data is collected, it is analyzed based on activity; data reduction, data visualization and conclusion drawing or verification. The result will be described as it is.

III. RESULTS AND DISCUSSION

Indonesia's Readiness to Face Society 5.0

Society 5.0 is described as a data-driven society **[7]**. A data-driven society is a society where data (collected by IoT/Internet of Things networks) is turned into information and knowledge, which then "powers" the real world. First, data moves the world indirectly through people. That is, vast data resources inform and guide human decision-making, which in turn has an impact on change in the world. Second, data moves the world directly (without human intervention) through automated processes. However, in a data-driven society, the available data will be overwhelming and extensive, and become real-time data to boot. In this case, the technology allows users to monitor traffic flows throughout the city in real time. For example, to monitor the traffic flow of people, users can refer to smartphone data or access the data of prepaid transport cards (known as IC cards in Japan). To monitor the volume of pedestrian and vehicular traffic, users can analyze CCTV camera footage installed along roads and in buildings. In addition, it can also combine this data with shopping data to gain insight into the motives of people's movement. By modeling all this urban data visually in real time, users will understand the entire workings and dynamics of the city.

In contrast to Industry 4.0 which has a vision of smart factories, this concept emphasizes the manufacturing sector as the main physical space (real world); for cyberspace, Industry 4.0 envisions a cyber-architecture centered on Cyber-physical systems (CPS) where information is integrated horizontally between different industries and vertically in manufacturing systems. On the other hand, Society 5.0, with the vision of a supersmart society, emphasizes society as the main physical space (real world); for cyberspace, Society 5.0, should pursue a CPS-centric cyber architecture in which information is integrated horizontally between different service sectors (e.g., energy, transportation) and vertically within systems that track the history and attributes of each service user (such as

information medical history, consumption behavior, and educational history). It must also achieve solid information security to enable the use of information **[7]**.

Society 5.0 is a very new concept as a guide for social development and can have a profound impact on society at all levels, by proposing a deepening of the potential of the individual-technology relationship in promoting the sustainable improvement of the quality of life of all people in the world through super-intelligent societies. Society 5.0 can have a major impact on society at all levels, especially in terms of quality of life and community sustainability. The reference to the concept of sustainability as a key element of innovation refers to the relevance of the economic, social and environmental dimensions inherent in the innovation process. The economic dimension of sustainability relates to the profit component, with issues such as economic growth, efficient use of resources and the financial viability of companies. The environmental dimension focuses on combating pollution and the efficient and wise use of natural resources. The social dimension concerns issues such as equal opportunity, equity in the distribution of wealth, ethical behavior, equality and fairness **[8]**.

The Indonesian people need the main expertise in facing industry 4.0, namely having information, media and technology skills. In other words, people must be technology literate, namely people who have information, media and technology skills including media literacy, visual literacy, multicultural literacy, global awareness, and technological literacy **[2][9]**. The community is also required to have learning and innovation skills which include creativity and curiosity, problem solving, and risk taking. Other skills that are no less important are skills in life and learning such as having leadership and responsibility, having ethical and moral values, productivity and accountability, flexibility and adaptation, social and cross-cultural, initiative and independent. In Society 5.0, the community is also required to have the ability to communicate effectively such as being able to work in teams and collaborate, have personal and social responsibilities, in communicating must be interactive, have a national and global orientation.

Furthermore, Society 5.0 is not only about technology, it is also about politics and regulation. The Japanese government encourages local companies to share big data and enhance collaboration to create new innovations. Currently, the company's capabilities are still limited because the data needed belongs to other companies. In the future, the public and private sectors can work together to create new systems that are safer and more effective. This will certainly encourage more companies to share information and allow other companies to use employee data to develop better products than before **[2]**.

The Importance of Improving the Quality of Education

Based on the results of research [10] in his research entitled "Reactualization and Contextualization of Local Wisdom with Global Manhaj: Efforts to answer the problems and challenges of education in the era of Society 5.0 and the Industrial Revolution 4.0". According to Rouf, the effects of

the Industrial Revolution 4.0 cannot be stopped. Society 5.0 should be addressed as a social phenomenon that causes important changes. The results of this study indicate that education must have an inclusive paradigm and be open to new things that are good for progress to become the winner of the current 4.0 industrial revolution. Exclusive and conservative attitudes lead to abandonment. However, the acceptance of these new things cannot be out of control, the community must continue to preserve traditions that are rich in noble values, contextualize them according to the needs of the times. Active preservation of tradition, creativity and innovation is an absolute necessity for the millennial generation. Furthermore, millennials need to strengthen skills according to their talents and interests and master international languages for communication tools with the global world.

This is also supported by the statement of the Education Curriculum Implementation Analyst of the Directorate of Elementary Schools, Ministry of Education, Culture, Research and Technology, Dwi Conscience, who stated that to face the era of society 5.0, the education unit requires a change in the educational paradigm. Among them, educators must minimize their role as learning material providers, but educators must be an inspiration for the growth of students' creativity. This means that an educator must have a role as a facilitator, tutor, inspiration and true learner who motivates students to "Learn Independently," **[11]**. There are several skills that must be possessed in the 21st century, including: leadership, digital literacy, communication, emotional intelligence, entrepreneurship, global citizenship, problem solving, team-working. There are several possibilities that can be done by the world of education in Indonesia to meet the era of society 5.0, namely, first it can be seen in infrastructure, the government must try to increase equitable development and expand internet connections throughout Indonesia because as we know, currently not all parts of Indonesia can be connected with an internet connection. Second, teaching human resources must have digital skills and creative thinking. Third, the government must be able to synchronize education and industry so that graduates of higher education and schools can then work according to the majors and criteria required by industry and then reduce unemployment in Indonesia. Fourth, the use of technology as a tool for teaching and learning activities **[12]**.

Furthermore, there are two educational orientations in nation building, namely individual orientation and community orientation. Individual orientation, education plays a role in the formation of an educated person (educated person), namely through the process of developing self-potential. The abilities possessed by educated people are a means for self-understanding and the environment, adaptation efforts and participation in change, the main actors for change (innovators), and have predictive and anticipatory orientations. Thus, educated humans can be role models for others (reference behavior) and have a role in building society (society building). Thus, educated humans must have a participatory advantage for the realization of a comprehensive social transformation **[3]**.

Strengthening the Role of the Millennial Generation

For the first time, the term millennial was coined by William Strauss and Neil in their book Millennials Rising: The Next Great Generation (2000). They coined the term in 1987, when children born in 1982 entered pre-school. At that time, the media began to call it a group connected to the new millennium upon graduating from high school in 2000. Another opinion according to Elwood Carlson in his book entitled The Lucky Few: Between the Greatest Generation and the Baby Boom (2008), millennials are those born in the range of 1983 to 2001. If based on the Generation Theory proposed by Karl Mannheim in 1923, the millennial generation is the generation born in the ratio of 1980 to 2000. The millennial generation is also referred to as generation Y. This term began recognized and used in editorials of major United States newspapers in August 1993 **[1]**.

Furthermore, when compared to the previous generation, the millennial generation has its own characteristics based on region and socio-economic conditions. One of the main characteristics of the millennial generation is characterized by increased use and familiarity with media, media, and digital technology. Because they are nurtured by advances in technology, Millennials are creative, informed, passionate and productive. Compared to the previous generation, they are more technology friendly. This generation is a generation that involves technology in all aspects of life. The real evidence is that almost all individuals of this generation choose to use smartphones. By using this device, millennials can become more productive and efficient individuals. From this device, they can do everything from just sending short messages, visiting educational websites, transacting online, ordering transportation online. Thus, they can create new opportunities with increasingly complex technological developments. This generation is characterized by open communication, fanatical users of social networks, their lives are strongly influenced by technological developments and are more open to political and economic opinions. Therefore, they appear to be very responsive to changes in the environment that occur around them **[1]**.

Millennials and education are two different concepts, but they are interrelated and influence each other. Based on the article written by **[3]**, millennials grow and develop mainly through education, so that education becomes a vehicle for the development of millennials. For this reason, education is expected to produce competent human resources as assets for the development of the millennial generation who are ready to face problems and challenges in the future. Thus, human resources become an important part in the process of developing education for millennials.

Strengthening the Role of the Government and the Business Sector

In the era of society 5.0, there are cases of structural transformation and technological innovation in practice, and these are led by the government and the business sector. The government has been the initiator of structural transformation, while business has become the actor of technological innovation. However, the critical impact of a data-driven

society is the potential of the population to use data and become the main actor of innovation [8]. In addition, the Government and the business sector must use reliable data and become more open. The public, for their part, must engage with government and business on an ongoing and proactive basis while generating their own data, and governments and businesses must respond accordingly. To ensure that this cycle leads to a more data literate society, it is important to progressively develop best practices and foster a conducive culture. Once there is a lot of stakeholder consultation on services, technology, and law, the public will increasingly become the main actor in society, and innovation will increasingly be instigated by and for society. This is what is meant by Habitat Innovation. According to Habitat Innovation, once the public takes the initiative in using data, it will be possible to balance solving social problems with economic growth and creating the necessary conditions for sustainable urban transformation; this is how Habitat Innovation can help usher in Society 5.0.

[13] In his research entitled "Strengthening Bureaucratic Reform Towards the Era of Society 5.0 in Indonesia" in the journal Nahkoda Ilmu Governance, human resources in various types of public institutions need to increase their competence in e-resources management, managerial leadership, digital literacy and research as well as carry out transformation as a preparation for the increasingly rapid changes in realizing a knowledge society. Therefore, in the context of accelerating the bureaucracy in providing public services, structural improvements are needed, so the sustainability of bureaucratic reform must continue to be carried out to improve the quality of public services. This is done in order to strengthen the public's sense of trust in the service delivery of the government apparatus. Thus, bureaucratic reform is closely related to other aspects of reform such as shifting mindsets, developing technology-based public service structures, as well as improving regulations and leadership.

Today, more and more governments are launching open government data portals that provide data that can be accessed and used by everyone. This not only contributes to data-driven decision-making, but also directly affects citizens' trust, confidence and satisfaction in government, as open government data enables citizens to monitor government performance and management and facilitate data-driven solutions and services. Open data ecosystems (government) are very complex because they involve multiple stakeholders and create multi-directional channels through which data can create economic, social and environmental value but the data itself is significantly affected by political, social and economic outcomes, affecting both the data will be provided and its maintenance [14].

Through a well-structured administrative planning for the development of human resources and apparatus, in the future a bureaucracy society 5.0 can be created as a concept of government bureaucracy with quality human resources with professional apparatus, having skills, attitudes and out-of-the-box thinking. By adapting to the changes and developments of the times, it has become an obligation for government officials to have the advantage of knowledge, namely being able to know the development of knowledge information at various local, national and international levels. Second, excelling in skills means having skills that are able to take advantage of all forms of technological infrastructure to support the smooth functioning and task of existing jobs [13]. Excellence in mental attitude means that every government employee in carrying out his duties and functions is supported by the use of technology always has a human side in providing services. social problems that arise as a result of changing times that cause complex world problems. Therefore, the bureaucracy of society 5.0, which is the bureaucracy of the future, really needs the development of science based on the use of technology and human resources by competent officials in order to make an optimal contribution in various fields of community life [13].

In the business sector, the development of the industrial revolution 4.0 and society 5.0 has brought many impacts on people's lives. The behavior of people who are more satisfied with using technology to meet their needs with all conveniences is one form of the current era of the industrial revolution and society 5.0 in Indonesia. E-commerce is one form of technological development in Indonesia that can easily satisfy the public. Based on the results of a survey conducted by [13] it was found that 44.8% of transactions through e-commerce are more desirable because of their larger market share. This is because e-commerce provides more convenience, there is no time limit, and price comparisons between products can be more accurate. However, with the existing developments, it is important for the government, society and the world of education not to get carried away with the existing developments. So that the social impact caused does not become a negative controversy in society [15].

IV. CONCLUSION

Based on the discussion that has been described, it can be concluded that Society 5.0 is described as a data-driven society. In Society 5.0, people are required to have the ability to communicate effectively such as being able to work in teams and collaborate, have personal and social responsibilities, in communicating must be interactive, have a national and global orientation. To prepare professional and competent human resources in the era of society 5.0, it is necessary to increase education, involve the millennial generation, and also collaborate with the government and the business sector. By adapting to the changes and developments of the times, it is hoped that Indonesia's human resources in the future will have superior knowledge and skills in the field of information technology. This is useful for increasing the competitiveness of human resources at various levels, both locally, nationally and internationally

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