

Human Resource Development Strategy : Digitalization and Artificial Intelligence in West Java Province, Indonesia

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ABSTRACT

Digitalization and artificial intelligence have brought significant changes to various sectors, both economic, social, and governmental. for the province of West Java. The challenge of developing human resources requires adaptation to technological changes. West Java Province is one of the largest provinces in Indonesia that faces various challenges related to the development of digitalization and artificial intelligence. The strategy for developing human resources in West Java Province in facing digitalization and artificial intelligence must be carried out comprehensively and involve various stakeholders.

INTRODUCTION

Digital growth and the development of artificial intelligence have brought significant changes in various aspects of life, including in the province of West Java. The rapid advancement of technology and the digital era have had an impact on various sectors, both economic, social, and government. On the one hand, the industrial revolution 4.0 brings great opportunities and benefits to society and business. However, on the other hand, there are challenges that need to be faced, especially in the development of human resources so that they can adapt to the technological changes that occur (Edrawati, 2023). West Java Province as one of the largest provinces in Indonesia faces various challenges related to the development of digitalization and artificial intelligence. The number of internet users in West Java reached 16% of the total internet users in Indonesia, which amounted to 171.17 million people in 2018. (Widjaja & Widodo, 2021). Although West Java has a high number of internet users, there is a gap in the digital competence of the community.

Digitalization and artificial intelligence have brought about various changes in various sectors, including in the field of employment. The industrial revolution 4.0 has shifted and changed business models, which have an impact on shifting work patterns and organizational structures. (Edrawati, 2023). Ease of access to information and automation has caused some jobs to be replaced by machines and technology.

The impact of the COVID-19 pandemic has accelerated the trend of digitalization and the use of artificial intelligence in various sectors. This requires human resources to adapt quickly and develop the necessary digital competencies. (Edrawati, 2023) (Megawati, 2021). However, there are still many people, especially in West Java, who feel overwhelmed in the learning process and feel less safe when transacting digitally. (Arifin & Kohar, 2022). Low digital literacy and technological skills among the community are major challenges that need to be faced.

Therefore, a comprehensive and planned human resource development strategy is needed to face the challenges of digitalization and artificial intelligence in West Java Province.

LITERATURE REVIEW

Digital advancement and the development of artificial intelligence have presented various opportunities and challenges for the province of West Java. Research related to human resource development strategies in facing digitalization and artificial intelligence in West Java shows several important things:

1. West Java Province has great potential in utilizing technological developments, with a fairly high number of internet users. (Edrawati, 2023).
2. However, there is still a digital competency gap in society, especially in terms of digital literacy and technological skills. (Roisah et al., 2022).

3. The impact of the COVID-19 pandemic has accelerated the digitalization trend in various sectors, which requires human resources to adapt quickly. (Roisah et al., 2022)
4. The development of an integrated Internet of Things technology system is one way to increase efficiency and productivity, but requires increased research and development capacity in Indonesia. (Megawati, 2021).
5. The role of local governments, especially the West Java Provincial Communication and Information Service, is important in realizing electronic-based public services and increasing digital literacy in the community.
6. For Micro, Small and Medium Enterprises, digitalization brings its own opportunities and challenges.
7. Improving digital competencies and skills is key to human resources being able to adapt to the technological changes that occur.

The strategy for developing human resources in West Java in facing digitalization and artificial intelligence needs to consider various aspects, both in terms of strengthening digital literacy, improving technological skills, and collaboration between the government, private sector, and the community. With the potential for a high number of internet users, West Java has a great opportunity to take advantage of advances in digital technology and artificial intelligence.

METHODOLOGY

To develop a comprehensive human resource development strategy in West Java Province in facing digitalization and artificial intelligence, a qualitative research method with a literature study approach is used. Data and information are collected from various sources, including scientific journals, research reports, and related articles.

The analysis was conducted in depth to identify various potentials, challenges, and strategies that can be implemented. Some steps taken in this study:

1. Collecting and reviewing literature relevant to the topics of human resource development, digitalization, and artificial intelligence in West Java Province.
2. Identifying and classifying various potentials, challenges, and needs for human resource development in West Java related to digitalization and artificial intelligence.
3. Formulate a comprehensive human resource development strategy, taking into account the roles of local government, the private sector, and the community.

This research is expected to provide recommendations for appropriate strategies to develop the competence and skills of human resources in West Java in facing digital transformation and the development of artificial intelligence.

RESEARCH RESULT

Based on the results of the literature search, the following are human resource development strategies that can be applied in West Java Province in facing digitalization and artificial intelligence:

1. Increasing digital literacy and skills of the community, the local government, through the West Java Provincial Communication and Informatics Office, can develop training programs and capacity building in the field of digital literacy for the community. Digital literacy not only includes basic knowledge of using digital devices, but also the ability to use them wisely and safely.
2. Development of technology and artificial intelligence ecosystems The government and private sector can work together to develop integrated digital infrastructure, including improving internet connectivity and developing artificial intelligence-based applications to improve the efficiency of public and business services.
3. Increasing the capacity and skills of human resources in the digital and AI fields, Vocational education and training institutions can design curricula that are in accordance with the needs of the labor market, by strengthening digital competencies and the ability to adapt to technological developments.
4. Empowering MSMEs through digitalization, Local governments and the private sector can provide training, assistance, and incentives for MSMEs to utilize digital technology and artificial intelligence in running their businesses, such as online marketing, digital financial management, and the use of analytical data.
5. Multi-party collaboration in HR development, Government, private sector, academics, and the community need to collaborate in designing and implementing human resource development programs that are in line with the needs of digital transformation and the development of artificial intelligence in West Java.

DISCUSSION

The strategy for developing human resources in West Java Province in facing digitalization and artificial intelligence must be carried out comprehensively and involve various stakeholders. Increasing digital literacy and skills in the community is an important first step, so that the community can adapt to the technological changes that occur.

On the other hand, the development of an integrated technology and artificial intelligence ecosystem is also key to increasing efficiency and productivity in various sectors. Increasing the capacity and skills of human resources, especially in the digital and AI fields, is a necessity that cannot be postponed any longer.

Empowering MSMEs through digitalization also needs attention, considering the strategic role of MSMEs in the West Java economy. Multi-party collaboration, between the government, private sector, academics, and the

community, is essential to design and implement a comprehensive human resource development program.

Stakeholder Strategy Focus Increasing digital literacy and skills of the community
Local government Development of training programs and capacity building in the field of digital literacy
Development of a technology and artificial intelligence ecosystem
Government and private sector Development of integrated digital infrastructure, increasing internet connectivity, and developing AI-based applications
Increasing the capacity and skills of human resources in the digital and AI fields
Vocational education and training institutions Preparation of curricula that are in line with the needs of the labor market, strengthening digital competencies and adapting technology
Empowering MSMEs through digitalization
Local government and private sector Training, assistance, and incentives for MSMEs to utilize digital technology and AI
Multi-party collaboration in human resource development
Government, private sector, academics, community Design and implementation of human resource development programs that are in line with digital transformation and AI developments.

CONCLUSION AND RECOMMENDATIONS

The strategy for developing human resources in West Java Province in facing digitalization and artificial intelligence must be carried out comprehensively and involve various stakeholders. Some of the main strategies that can be implemented include: (Rahayu & Budiarti, 2021) (Fuadi et al., 2021) (Warsiyah et al., 2023)

1. Improving community digital literacy and skills
2. Development of technology ecosystem and artificial intelligence
3. Increasing HR capacity and skills in the digital and AI fields
4. Empowering MSMEs through digitalization
5. Multi-party collaboration in human resource development

These strategies need to be implemented in an integrated and sustainable manner in order to increase the competitiveness of human resources in West Java in facing digital transformation and the development of artificial intelligence.

ADVANCED RESEARCH

This research still needs to be continued to always follow the development of human resources in the advancement of digitalization technology and artificial intelligence, this research is part of the development of human resource management studies.

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