



## The Dynamics of Human Capital Development in Facing Changing Talent Needs in the Era of Disruption

Rulif Hura<sup>1\*</sup>, Muhammad Dzakwan<sup>2</sup>, Kamal Aldiansyah<sup>3</sup>, Anggun Fauziah Anggraini<sup>4</sup>, M. Alif Al Daffa<sup>5</sup>, Anggia Sari Lubis<sup>6</sup>  
North Sumatra University

**Corresponding Author:** Rulif Hura [rulifhura7@gmail.com](mailto:rulifhura7@gmail.com)

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### ABSTRACT

The era of disruption, marked by the development of digital technology, automation, and artificial intelligence, has fundamentally changed the need for talent in the workplace. This study aims to analyze the dynamics of human capital development in response to changing talent needs, identify factors influencing its effectiveness, and evaluate its contribution to organizational readiness. This study uses a descriptive qualitative approach with data collection techniques through in-depth interviews, observation, and documentation. Data analysis was conducted using the Miles, Huberman, and Saldaña model. The results show a significant shift from conventional technical competencies to digital, analytical, and adaptive competencies. Human capital development strategies such as upskilling, reskilling, digital talent acceleration, and adaptive learning have proven to be key factors in improving organizational readiness. The effectiveness of human capital development is influenced by management support, digital infrastructure, a culture of innovation, and individual learning motivation. This study confirms that sustainable, technology-based human capital development is a key prerequisite for creating organizational competitive advantage in the era of disruption.

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## **INTRODUCTION**

The era of disruption, marked by advances in digital technology, automation, artificial intelligence, and shifting business models, has transformed the talent landscape across various industrial sectors. Modern organizations face significant challenges in adapting the quality of their human resources (HR) to the demands of increasingly complex, adaptive, and technology-based new competencies. In this context, human capital development is a strategic factor determining an organization's ability to survive and compete. Becker (1993) emphasized that human capital is a crucial investment that increases individual productivity through education, training, and work experience.

Changing talent needs in the era of disruption require organizations to not only recruit competent workers but also to sustainably develop internal HR capacity through Human Capital Development (HCD) strategies. Barney (1991) stated that valuable, rare, difficult to imitate, and irreplaceable human resources are an organization's primary source of competitive advantage. Therefore, organizations need to build HR development systems that are responsive to the dynamics of changing labor markets. Afandi et al. (2024) show that the trend in modern HR competency development is increasingly oriented towards adaptive learning, digital capability enhancement, and lifelong learning in response to accelerating industrial change. Furthermore, Zhang et al. (2024) emphasize that digital transformation demands new competency models capable of accommodating exponential changes in job structures and talent needs.

Technology is advancing at an ever-increasing pace. In fact, technologies like artificial intelligence (AI 4.0) are not just a trend, but have completely transformed the way we work. This can create quite an interesting situation, as it can help work become faster and more efficient. However, on the other hand, the skills and expertise we have been taught since ancient times are becoming less relevant and even "outdated." This situation can be called the era of disruption. According to research in the *Journal of Management and Entrepreneurship*, companies are being forced to view employees not as costs, but as intellectual assets or human capital that must be continuously developed. Because automation, artificial intelligence (AI) has replaced various roles, so Human Capital that only relies on static technical skills is certain to be left behind by those who are willing to keep up with existing technological developments.

The phenomenon in Indonesia shows that many companies, even MSMEs, are struggling to find talent that combines digital fluency with soft skills, such as high creativity and the ability to solve complex problems. This situation creates a stark contrast between educational theory and the current workplace, with many employees struggling to cope with developments. Without major transformations such as upskilling and reskilling programs, companies will lose their relevance and fail to adapt to increasingly dynamic market demands. This research focuses in discussing about:

1. How are the dynamics of human capital development in facing changing talent needs in the era of disruption?
2. What factors influence the effectiveness of human capital development in adapting to the needs of new talent?
3. How does human capital development contribute to organizational readiness to face changing talent needs?

Therefore, the research objective is:

1. Analyzing the dynamics of human capital development in facing changing talent needs in the era of disruption.
2. Identifying factors that influence the effectiveness of human capital development.

Evaluating the contribution of human capital development to organizational readiness in meeting future talent needs.

## LITERATURE REVIEW

### *The concept of Human Capital Development (HCD)*

Human Capital Development is the process of improving individual quality through investment in education, training, skills development, and work experience aimed at increasing the productivity and adaptive capacity of the workforce. Becker (1993) explains that human capital is an economic asset that determines the competitive value of individuals and organizations. Human Capital Development is a strategic process of increasing individual capacity through education, training, and work experience. Becker (1993) emphasized that investment in human resources will result in increased productivity and economic value.

### *The Era of Disruption and Changing Talent Needs*

The era of disruption is characterized by rapid change due to technological innovations that replace conventional work models. This change creates a need for new talent that demands digital skills, analytical thinking, creativity, agility, and adaptability. Zhang et al. (2024) emphasize that organizations must develop a new competency model that aligns with the acceleration of digital change. The era of disruption is a time when "old ways no longer work" due to the emergence of technologies like artificial intelligence (AI) and automation. Because the technology is new, the people who operate it also require new skills. Organizations are no longer looking for people who can only perform routine tasks, but rather for agile, creative, and analytical talent to keep pace with rapid digital change.

### *Dynamics of Talent Needs*

Talent needs are dynamic, influenced by technological change, globalization, hybrid work patterns, and business transformation. Today's talent is required to possess multi-skilling capabilities and the ability to continuously learn. Today's talent needs are highly fluid and changing. Due to remote (hybrid) work and global competition, workers can no longer afford to have just one skill set. Today's talent is required to possess "multi-skilling capacity," meaning the ability to master multiple fields and a passion for lifelong learning to remain relevant in the industry.

### *Human Capital Theory*

Becker (1993) through Human Capital Theory explains that investment in human resources will increase individual productive capacity and increase their contribution to organizational growth. This theory simply states: "Investing in people always pays off." If a company invests time and money in training its employees, they will perform better (increased productivity). As a result, their contribution to the company's progress will be far greater than if they had received no training at all.

## **METHODOLOGY**

This study uses an exploratory, descriptive qualitative approach to deeply understand the dynamics of human capital development in response to changing talent needs (Creswell, 2014). Data were collected through in-depth interviews with HR leaders, talent development managers, and employees, supported by observations and documentation of HR development programs. Data analysis used the Miles, Huberman, and Saldaña (2014) model, which includes data reduction, data presentation, and conclusion drawing. Data validity was maintained through triangulation of sources and methods.

## **RESULT AND DISCUSSION**

### *Dynamics of Changing Talent Needs*

- Shifting core workforce competencies  
The changing need for talent is marked by a shift in core competencies from conventional technical skills to higher-level digital, analytical, and cognitive-based skills that are more relevant to the demands of modern industry.
- Digital talent and conventional talent  
A dichotomy exists between digital talent that is adaptive to technology and conventional talent that tends to be static, so organizations need to integrate the two through structured and sustainable competency transformation.
- Demands for agility and adaptability  
Organizations demand a workforce with high levels of agility and adaptability to be able to respond to changes in the business environment quickly, flexibly, and effectively in situations of increasing uncertainty.

### *Human Capital Development Strategies*

- Upskilling and reskilling  
Upskilling and reskilling strategies are the primary approaches to improving human resource capacity, with a focus on developing new skills and updating existing competencies to remain relevant to industry needs.
- Digital talent acceleration  
Accelerating digital talent development is carried out through intensive technology-based programs to create human resources capable of optimally mastering digital systems, data analytics, and technology-based innovation.
- Adaptive learning system  
The implementation of an adaptive learning system enables a flexible and personalized learning process, so that individuals can develop competencies

according to specific needs and the dynamics of changes in the work environment.

- Career mobility development  
Developing career mobility encourages workforce flexibility in changing roles or functions, thereby increasing cross-field experience and strengthening readiness to face changing organizational needs.

*Factors Determining the Effectiveness of HCD*

- Management support  
Management support plays a vital role in the success of human capital development through the provision of policies, resources, and strategic commitments that encourage the effective implementation of HR development programs.
- Digital learning infrastructure  
The availability of digital learning infrastructure is a crucial factor in supporting modern learning processes, including e-learning platforms, learning management systems, and adequate access to technology.
- Organizational innovation culture  
A strong culture of innovation encourages individuals to continuously learn, experiment, and adapt, thus creating a work environment conducive to competency development and performance improvement.
- Workforce learning motivation  
Individual learning motivation influences the effectiveness of human resource development, where the level of willingness to develop is the main determinant in the success of the continuous competency improvement process.

*Impacts on Organizational Readiness*

- Improving the readiness of future talent  
Human capital development contributes to improving the readiness of future talent by equipping individuals with skills that are in line with the needs of the industry, which continues to develop and change dynamically.
- Organizational adaptability to disruption  
Organizations that have adaptive human resources tend to be better able to face disruption, because competency flexibility allows for quick and appropriate adjustments to business strategies in conditions of extreme change.
- Strengthening sustainable competitiveness  
Sustainable human capital development strengthens organizational competitiveness through improving the quality of human resources, continuous innovation, and the ability to create added value in a competitive business environment.

## CONCLUSIONS AND RECOMMENDATIONS

This research shows that the era of disruption has significantly changed talent needs in the workplace, which now demands a combination of digital and soft skills. There is a mismatch between workforce competencies and industry needs, exacerbated by slow organizational adaptation in updating

human capital development strategies and minimal use of technology in the competency development process. Effective human capital development in this era must be adaptive, sustainable, and integrated with technology. Furthermore, the gap between conventional and digital talent is a major challenge that needs to be addressed immediately through appropriate development programs. The research also shows that innovative leadership, employee development, and marketing strategies significantly influence employee retention across generations. Organizational commitment acts as a mediating variable that strengthens this relationship, so that higher commitment leads to higher employee retention.

#### **FURTHER STUDY**

This research still has limitations so further research on this topic is needed "The Dynamics of Human Capital Development in Facing Changing Talent Needs in the Era of Disruption".

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