

The Role of Human Capital Investment in Improving the Quality of Human Resources (HR) in Education in the Digital Era

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ABSTRACT

In the rapidly developing digital era, the quality of human resources (HR) in the education sector is one of the determining factors for the success of national development. Improving HR quality through investment in human capital, such as education and training, is very important to face the challenges of globalization and increasingly advanced technology. This study aims to determine the role of human capital investment in improving the quality of human resources (HR) in education in the digital era. This study uses a qualitative research method. The data collection technique in this study is through literature studies. The data that has been collected is then analyzed in three stages, namely data reduction, data presentation, and concluding. The study results show that investment programs in human capital, implemented through training and education, not only improve the technical skills of educators but also strengthen their dedication to the profession and social responsibility. In addition, health insurance included in this investment ensures that individuals can work optimally, improving overall educational performance. The importance of investment in human capital in the education sector is reflected in its influence on the competitiveness of academic institutions. Educational organizations with quality human resources will be better able to attract students and produce graduates ready to compete in the international job market. Therefore, developing human resource capacity through training, continuing education, and opportunities to attend seminars is a strategic step that educational institutions need to take.

Keywords: Human Capital Investment, Quality of Human Resources, Education.

INTRODUCTION

In the rapidly developing digital era, the quality of human resources (HR) in the education sector plays a crucial role in the success of national development (Yasir & Gunawan, 2024). Technological advances and globalization have changed the world of work, demanding constantly evolving skills and knowledge. Therefore, improving the quality of human resources is a must, primarily through investment in human capital, such as relevant education and training.

Investment in human capital can be interpreted as the knowledge, skills, competencies, and other attributes that individuals possess to support economic activities (Purwanti & Kurnia, 2024). The quality of human capital is essential because, without good human resources, physical capital will not have significant meaning. Investments in human resources can be made through education, health services, and appropriate skills training (Innocenti & Golin, 2022).

Education oriented to developing digital skills and innovation is essential to prepare educators and learners to face increasingly complex challenges (Ridwan, 2021). Investment in human capital not only improves individual competence but also strengthens national competitiveness. In addition, continuous training for educators is urgently needed to adopt modern teaching methods that support a more effective learning process to the demands of the times.

To face the challenges of globalization and increasingly advanced technology, the quality of human resources in the education sector is the central pillar in creating a competitive generation that can adapt to dynamic changes. Therefore, focusing on improving the quality of human resources through human capital investment is a strategic step to ensure the sustainability of national development that is more inclusive and highly competitive.

This study enriches the literature on sustainable human resource development by emphasizing the importance of sustainable investment in digital training for educators. These findings underscore the importance of long-term capacity building and strengthen the lifelong learning theory for developing adaptive human resources to technological changes. This study aims to determine the role of human capital investment in improving the quality of human resources (HR) in education in the digital era.

Previous studies have highlighted the critical role of human capital investment in enhancing HR quality. For instance, (Hastuti & Dewi, 2019) found that such investments in the context of the UPT Library significantly contributed to knowledge enhancement, skill development, motivation, and health insurance benefits. Through training and interaction with resource persons, participants updated their knowledge and expanded their perspectives, enabling them to remain relevant in their roles. Similarly, (Yuniarsih et al., 2022) emphasized that the success of organizations hinges more on human capital than business strategies alone. Companies must recognize the unique value of their workforce and prioritize its development as a critical factor in achieving organizational objectives.

To further underscore the urgency of human capital investment, recent statistics reveal that organizations allocating more than 10% of their budgets to employee development experience a 24% higher retention rate and 29% greater productivity (Deloitte, 2023). Case studies from leading global companies such as Google and IBM demonstrate the transformative impact of targeted training programs and continuous skill development. For instance, Google's "Grow with Google" initiative equips employees with the latest digital tools and skills, boosting innovation and ensuring adaptability in a competitive landscape (Steiber, 2024).

Based on the above background, this research aims to build on existing literature by focusing on sustainable human resource development in education through long-term investment in digital training for educators. By emphasizing the importance of capacity building and lifelong learning, this research seeks to show how strategic human capital investments can create adaptive and competitive human capital in the face of technological advancements. The benefit of this research is to provide insights for education stakeholders, including policy makers, educational institutions, and educators, on the importance of strategic investment in digital competency development to face the demands of the digital era. This research is also expected to be a reference in designing sustainable training and development programs, so as to create human resources that are not only individually competent but also able to improve national competitiveness.

RESEARCH METHOD

This study uses qualitative research methods. The qualitative research method is an approach that focuses more on descriptive analysis. In this study, the subject's point of view is highly emphasized, while theory is used by the researcher as a guide so that the research process is in harmony with the reality found in the field. This method provides an in-depth explanation of a phenomenon through comprehensive data collection. The data collection technique in this study is carried out through a literature study, namely by collecting relevant information and data from various sources such as books, journals, scientific articles, and other documents related to the research topic. After the data is collected, the analysis process is carried out in three main stages: data reduction, data presentation, and conclusion.

RESULTS AND DISCUSSION

Education plays a vital role in developing a country because, with adequate education, a country will be included compared to other countries. Education is a structured, planned, and sustainable process that shapes individuals to be better at living in maturity and culture (Herdiansyah & Kurniati, 2020). The quality of the education system in a country reflects future investment because education is the engine of growth and the key to the success of a country's development. Quality education is needed to contribute significantly to economic development and progress.

The phenomenon that occurs today in education in the digital era requires high adaptability and mastery of technology. Information technology has become a significant tool in disseminating knowledge and is the driving force behind education reform. The use of new technologies in learning, such as mobile devices, smart boards, open online courses (MOOCs), tablets, laptops, simulations, dynamic visualizations, and virtual labs, has brought about significant changes to the way education is organized in schools and institutions (Haleem et al.,

2022). The Internet of Things (IoT) is now one of the most cost-effective methods to educate the younger generation. In addition, IoT also serves as a powerful mechanism to provide a world-class learning experience for everyone (Shiddiqi et al., 2020).

However, to achieve the success of this change, human resources are needed who can adapt quickly to the technology. The quality and skills of individuals, or human capital, are critical factors in ensuring that digital transformation in education runs effectively and produces the desired impact. As a developing country, long-term investment in the human capital sector is the right choice to encourage Indonesia to reach a level equivalent to developed countries (Nandini & Latif, 2024). Human capital is essential in education because it provides a strong foundation for advancing education and creates a new order that is very important in the modern era and continues to develop (Efendi, 2020).

Human capital is an economic value inherent in human resources, including experience, skills, education, health, integrity, and loyalty. Human capital is an intangible asset owned by an organization and plays a vital role in helping to achieve the company's goals (Prasojo et al., 2017). In education, improving the quality of human resources is very important because education plays a role in developing skills and competencies. Investment in human capital is an important step that must be taken to improve the quality of the workforce and support the achievement of organizational or company goals.

Investment is investing or spending a certain amount of funds to get something. In terms of human capital investment, this means spending funds to improve individual abilities, with the expectation that once the investment process is complete, the results will provide optimal returns. Human capital investment is a long-term investment that aims to develop human resources (HR) to increase productivity. This investment can be through education, training, health care, and population programs (Nandini & Latif, 2024). According to Jhingan, human capital investment is related to the formation of human capital, which is the process of increasing the number of individuals who have expertise, education, and experience, which is an essential factor in the economic and political development of a country (Jhingan in Hastuti & Dewi, 2019).

Human capital investment is one factor that can affect improving the quality of human resources (HR), especially in the work environment. Previous research, as conducted by Hastuti and Dewi (2019), related to librarians in the Technical Implementation Unit (UPT) of the Diponegoro University Library (Undip). The critical roles of human capital investment include increasing knowledge, improving skills, health insurance, and increasing motivation.

First, human capital investment plays a role in improving human resource knowledge. Workers gain additional information and new skills after participating in training or education programs as part of human capital investment. This is in line with the research (Hardianto & Nofriser, 2022), which shows that human capital investment activities can enrich human resources with broader knowledge and better abilities to overcome challenges in the workplace.

This additional knowledge is essential for employees to carry out their duties more effectively and efficiently.

In addition to knowledge, they improve skills resulting from human capital investment. After participating in training or development programs, HR can apply the new skills acquired to work better. As a result, there is an increase in technical competence and the spirit to be more productive (Hastuti & Dewi, 2019). Other findings from (Indrayati & Suhariadi, 2023) show that human resources experience increased capacity and capability through education and training. Interventions in the form of exercise also provide added value for employees, opening up opportunities for HR to improve work performance professionally.

Another vital role of human capital investment is health insurance. (Rahayu & Irawan, 2021) It is stated that human resource investment is not only limited to education but also includes investment in health. Health and education are two essential pillars in improving human resource performance. Education expands knowledge and skills, while health guarantees that individuals can work optimally. The health insurance provided through this investment helps employees work better and improves individuals' well-being.

In addition, HR motivation is also positively affected by training programs that are part of human capital investment. (Hastuti & Dewi, 2019) Showed that the training activities improve skills and provide motivational encouragement for employees. When employees feel that the organization supports workforce development through relevant training, employees are more motivated to make maximum contributions in the workplace. This increased motivation can encourage the achievement of higher work targets and play a more active role in achieving organizational goals. This critical role makes human capital investment a crucial component in improving the quality and productivity of human resources in various sectors, especially education.

There are several reasons why investing in human capital is very important in education in the digital era. One is to prepare a quality generation for the future. As is known, one of the critical elements in the educational process is the existence of human resources, especially teachers, who function as the spearhead in implementing education. The role of teachers in determining the quality of education received by students is vital. Good quality education equips students with knowledge and skills and prepares them to face future challenges.

Historically, education has often been seen as one of the most important types of social services, and education is considered a public service provided by the state to its citizens. Although, at first, education may not seem to impact the community's economy, in the end, awareness of the importance of education in encouraging the economic growth of a nation begins to emerge (Efendi, 2020). Quality education significantly influences economic progress, as a good education results in a more skilled and competitive workforce in the global market.

Investing in teacher training is a strategic step that can positively impact students' future. When teachers are given the proper training, educators improve their competence in mastering

the subject matter and adopt more effective teaching methods. Research conducted by (Solechan et al., 2023) shows that the training held for teachers at SMA Primaganda Jombang has resulted in an actual increase in competence in mastery of subject matter. This improvement is reflected in better student learning outcomes and improved teaching quality. This shows that investment in human capital is beneficial for the development of individual teachers, which then has long-term implications for the quality of education and the advancement of the younger generation. The improved quality of education contributes to the development of better human resources, thereby supporting economic growth and social development in society.

Furthermore, investment in human capital in the education sector also brings other benefits, one of which is improving the quality of teachers. When human resources, such as teachers, receive training, they tend to feel more motivated and committed to their work (Solechan et al., 2023). This increased motivation positively impacts the quality of teaching provided by educators. Qualified human resources play a crucial role in driving innovation and increasing the productivity of individual workers. Therefore, developing superior human resources supports efficiency and effectiveness in the educational environment and increases productivity in various sectors (Nandini & Latif, 2024).

Finally, an essential benefit of human capital investment is its ability to strengthen the competitiveness of educational organizations. Human resources have a vital role in the competitive strategy of academic institutions, with various additional values that can be presented (Yuniarsih et al., 2022). In addition, superior human resources bring uniqueness and qualities that distinguish educational institutions. Improving the quality of human resources for academic institutions will automatically increase their competitiveness in the education market. Organizations with qualified faculty and administrative staff not only attract more students but can also produce graduates ready to compete in the world of work. The impact creates a positive cycle where improving the quality of human resources contributes to enhancing the reputation and attractiveness of the educational institution itself.

These benefits show that human capital investment in education is significant and must be implemented immediately to improve the quality of teaching and human resources. One example of its application is teacher training. The procurement of teacher training aims to enhance teacher competence in various aspects, including pedagogy, the use of technology, and curriculum development. Three primary abilities need to be improved, namely intellectual ability, technical ability, and social ability. Intellectual ability is related to the teacher's cognitive mastery and intelligence of the subjects taught. Meanwhile, technical abilities include the practical skills necessary to carry out their duties effectively. Social skills are crucial to building harmonious relationships with the academic community and creating a positive and collaborative learning environment (Hardianto & Nofriser, 2022).

In addition to training, providing opportunities for human resources to continue education is a significant human capital investment. Educational institutions must encourage educators and

staff to pursue further education, as investment in education is often more profitable than physical investment. According to Suryadi (Ali & Hayati, 2016), the impact of human capital investment through education can contribute greatly to the progress of newly industrialized countries compared to physical investment. The statement emphasizes how important education development is in improving the quality of human resources in a country.

Other human capital investments can be made by providing opportunities to participate in training, seminars, or workshops. These activities usually do not take much time and can be adjusted to the schedule of educators. Leaders of educational institutions should support and provide opportunities for every educator who wants to participate in training or seminars. Also, more senior and qualified educators must be given additional training to enrich knowledge and information. In this way, educational institutions can improve individual abilities, improving the quality of education provided (Hardianto & Nofriser, 2022).

Therefore, support from various parties, such as organizations and the government, is crucial in creating optimal human resource (HR) development. According to (Widodo, 2015), human resource development can run effectively if all stakeholders pay attention and responsibility to every activity and need needed in the human resource development process. Providing opportunities for educators to continue their education and participate in training is a beneficial step in creating a quality educational institution. In addition, this effort will also help educators and education staff achieve a glorious career. Therefore, investment in human capital is crucial to improving the quality of human resources. The suitable investment allows organizations to create global quality, innovative, and competitive human resources.

CONCLUSION

Education is a critical factor in the development of a country, and investment in human capital is significant in improving the quality of human resources (HR) in the education sector. In the ever-evolving digital age, the quality of education depends not only on physical infrastructure but also on the abilities and skills of individuals involved in the educational process, especially educators. This research confirms that investment in human capital, through education and training, contributes significantly to improving human resource knowledge, ability, health, and motivation. The study results show that human capital investment programs carried out in the form of training and education not only improve the technical skills of educators but also strengthen their commitment to their profession and social responsibility. In addition, integrated health insurance into this investment ensures that individuals can work optimally to improve overall educational performance. The importance of human capital investment in education can be seen from its impact on the competitiveness of academic institutions. Educational organizations with quality human resources will be better able to attract students and produce graduates ready to compete in the global job market. Therefore, human resource capacity

development through training, further education, and the opportunity to attend seminars is a strategic step that educational institutions must take.

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