

Human Capital in Higher Education (A Theoretical and Empirical Review ")

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ABSTRACT

The article discusses a systematic review related to Human Capital and the field of Education. The structure of this systematic review involves formulating research questions, conducting a systematic literature search, screening and selecting relevant articles, performing analysis and synthesis of findings, applying quality control measures, and drawing final conclusions. The changes brought about by globalization, advancements in information, technological developments, and intense competition have led companies and educational institutions to modify their strategies. There has been a paradigm shift regarding the fundamental assets of an organization in recent decades. Human Capital plays a central role in the success of both profit and non-profit organizations. By utilizing existing literature reviews, it becomes possible to address two main issues: analyzing the relationship between human capital and the field of education, particularly in higher education, and exploring human capital management.

Keyword: Human Capital, Systematic Review, Higher Education

INTRODUCTION

Human resources (HR) are a form of capital that can continuously evolve with time and the dynamics of the business environment, as well as advances in knowledge. The advantages of HR over other production factors in a company's competitive strategy include innovation and entrepreneurship capabilities, unique quality, specialized expertise, differentiated service, and the ability to develop productivity as needed (L. Mathis, Robert & H. Jackson, 2011). Wright & McMahan (2011) state that intellectual capital consists of human capital, social capital, and organizational capital. Meanwhile, Nahapiet & Ghoshal (1998) define intellectual capital as the "knowledge and knowing capability of a social collectivity," as an organization, intellectual community, or professional practice. Edvinson, Stewart, and Sueby (in Burr & Girardi, 2002) categorize Intellectual Capital into two

elements: human capital and structural capital. However, the most important is human capital, as this asset determines the success of a company in competition.

OECD (1999) defines intellectual capital as the economic value of two categories of intangible assets of a company, namely organizational and human capital. According to Roucek (1970), human capital can be interpreted as the economic value of HR related to their abilities, knowledge, ideas, innovations, energy, and commitment. Human capital is a combination of knowledge, skills, innovations, and a person's ability to perform tasks to create value and achieve goals. The value-added contribution of human capital in carrying out tasks and work will provide sustainable revenue in the future for an organization (Malhotra, 2008).

The role of human capital in the creation of intellectual wealth (intellectual assets) is very strategic, as only human capital (HR) can create and possess knowledge. Knowledge itself is the most crucial element in the process of creating organizational/company value, so the creation of company value is heavily influenced by human capital (Strategic HR). This perspective aligns with Luthy (1998) view, stating that human capital (Strategic HR) is a combination of knowledge, skills, innovation, and employees' ability to carry out their tasks, including the company's values, culture, and philosophy (Strategic HR). The paradigm shift about the basic capital of an organization has undergone a leap in this decade. Human capital has a central role in the success of an organization, whether it is profit or non-profit. This research provides a literature review focusing on the relationship between human capital and education.

METHOD

The research method used in this article is literature study, which aims to analyze the concepts, definitions, and measurement models of Human Capital from selected journal article references. In this study, a systematic literature review was conducted, and qualitative content analysis was performed. The process of literature identification involved searching keywords for Human Capital on the Open Knowledge Maps website.

RESULT AND DISCUSSION

In this Systematic Review, the authors found several journal articles discussing the application and role of Human Capital in organizations, both in general and specific contexts, which helped the researchers conduct a review and systematic study. The data collected were obtained from the Open Knowledge Maps website by entering the keywords "Human Capital" and "Education." On this website, 64 articles were found that discussed Human Capital and its relationship with the field of education. However, among the abundant data displayed on the screen, most of the articles still connected Human Capital with the economic

sector, and only a few addressed the association of Human Capital with the field of Education, particularly in the context of Higher Education. The data obtained are summarized in Table 1 and Figure 1 below.

Table 1
Recapitulation of Articles Found with the Keywords "Human Capital" and "Education"

No	Keywords	Amount	Total
1	Human Capital	21	61 Cases
2	Investasi Human Capital	4	
3	Intellectual Capital	3	
4	Capital Social	10	
5	Human Capital dan Capital Social	2	
6	Human Capital, Intellectual Capital, Customer Capital	3	
7	Intellectual Capital, Customer Capital	6	
8	Intellectual Capital, Human Capital	10	
9	Career Capital	2	

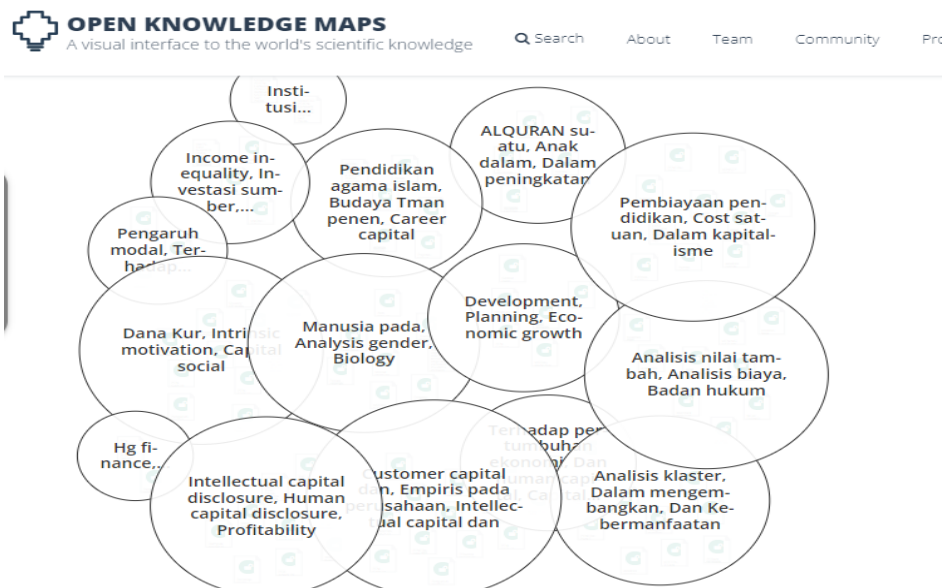


Figure 1. Search Pattern with Keywords "Human Capital" and "Education"

Based on the data obtained, as mentioned earlier that the focus of this study is on the field of education, out of the 61 cases available, 19 cases are related to the field of education. From these nineteen (19) cases, we further narrow it down to six (6) cases involving Higher Education.

Table 2 List of Authors, Titles, Methods, and Research Findings

No	Author, Title, Year	Data and Method	Result and Conclusion	Theme
1	Parwita Ningsih, Tri Darmawati. Modal sosial dan modal manusia pada pendidikan jarak jauh di Universitas Terbuka (2010)	There is no explanation provided.	Through distance education, there is an increase in social capital and human capital. The social capital formed due to the presence of distance education creates a possibility of a chain effect, resulting in the formation of social networks among human groups that enhance their human capital in distance education, which then becomes social capital for the surrounding environment.	Human Capital, Social Capital
2	Rusmini Peningkatan Mutu Lembaga pendidikan Tinggi melalui pengembangan Sumber Daya Manusia (2015)	The data collected from all faculties at private universities and higher education institutions in Yogyakarta.	To achieve a superior organization, it is necessary to identify unique resources and superior values possessed by higher education institutions for comparative strategies. By understanding their position, they can develop unification strategies to achieve cooperative advantages and transform comparative advantages into competitive advantages, resulting in superior organizational performance at a higher education institution.	Human Capital
3	Hariyanto Djatola dan Nur Hilal Peran Human Capital sebagai Sumber Strategi dalam Peningkatan mutu pendidikan di Organisasi	The key informants for this research were 5 initially, but during the information gathering process, additional informants were included through snowball sampling, resulting in a total of 15	The application of human capital role at the institution had been implemented in some areas but required further review by the leadership. The research results indicated five human capital components: individual capability, individual	Human Capital

	Pendidikan Tinggi (2021)	informants. The research used a qualitative research approach with a phenomenological research method.	motivation, the organizational climate, workgroup effectiveness, and leadership. Among these components, three required evaluation and actions for improvement.	
4	Fitri Nur Mahmudah, Lantip Diet Prasajo Keefektifan Human Capital Investment dalam persfektif pendidikan bagi tenaga kependidikan di Universitas Negeri Yogyakarta (2016)	The population for this research consisted of 536 education staff, and the sample for validation was 30, while the research sample was 205 (samples obtained from the population table by Issac and Michael). The research was an evaluation study using a quantitative approach.	The investment in education was considered effective. The recommendations are as follows: (1) There is a need for programs related to Human Capital Investment to facilitate education staff in obtaining higher qualifications. (2) The organization's leaders should understand human capital as it measures the capability of education staff to convert data into valuable results for the organization. (3) Leaders should recognize the value and contributions of education staff, enabling the organization to grow and develop rapidly.	Human Capital Investment
5	Dese Setyoloulan, Nadia, Rafidah Kinerja Organisasi Kemahasiswaan hubungannya dengan terminology Human Capital (2020)	The population for this research consisted of 250 students, and the sample used in the research was 64 students. The research used a quantitative approach with a descriptive correlational research design.	The performance of student organizations, in the context of human capital terminology, at the Faculty of Education, Universitas Negeri Malang, was found to influence the performance improvement.	Human Capital
6	Fairuzzabadi Pengaruh Modal Intelektual pada kinerja Organisasional (The method of data analysis used to analyze the relationship between variables in this	All three elements of intellectual capital (human capital, relational capital, and structural capital) positively influence the	Intellectual Capital

	2014	Matthewman & Matignon	<p>motivation to share information and knowledge, team spirit, and orientation.</p> <p>Human capital is the accumulation of knowledge, skills, experiences, and other attributes of the workforce in an organization that drives productivity, performance, and the achievement of strategic goals.</p>	
	2000	Mayo	<p>Human capital consists of five components: 1) Individual capability, 2) Individual motivation, 3) Leadership, 4) The organizational climate, 5) Work group effectiveness. Knowledge and Skills.</p>	
Intelektual Capital	2014	Fullan	<p>Intellectual capital and innovation potential are long-term keys to organizational "stability," and that humans or "human capital" are the primary sources of both assets.</p>	<p>Human Capital, Innovation Potential.</p> <p>Organizational, Human Capital.</p>
	1999	OECD	<p>Defining intellectual capital as the economic value of two categories of intangible assets in a company, namely organizational and human capital.</p>	<p>Human Capital, Social Capital, Organizational Capital.</p>
	2001	Wright et al		

Based on the opinions above, it can be concluded that the success of a company will be determined by its ability to manage knowledge assets. In today's developments, companies are required to compete using competitive advantages obtained through creative innovations generated by their intellectual capital. According to Stewart et al. in Sawarjuwono and Kadir (2003), human capital is the lifeblood of intellectual capital, the source of innovation and improvement, but it is a component that is difficult to measure. Mayo (2000: 120) stated that human capital has five components: 1) Individual capability, 2) Individual motivation, 3) Leadership, 4) The organizational climate, 5) Work group effectiveness. Each

component plays a different role in creating value for a company. From the literature review and expert opinions, it can be concluded that human capital is a system within an organization to improve and develop employees' performance through intellectual enhancement, knowledge, skills, and experiences so that the outputs produced by an organization have value and quality.

The role of intellectual capital greatly influences employee performance and, in the long term, will affect organizational performance. Intellectual capital can be used by organizations to create expected performance and serve as an evaluation tool for employee performance to create employees who are fit for the organization's future needs. Intellectual capital is a potential in the future that combines human capital and the potential of individuals in the organization. Thus, intellectual capital is an invisible asset that combines human factors, processes, and customers, providing a competitive advantage.

Son (2010) in Sanerya Hendrawan et.al (2012) states that human capital plays a crucial role in economic growth and poverty alleviation. At the macro level, the accumulation of human capital increases labor productivity, facilitates technological innovation, enhances returns to capital, creates sustainable growth, and in turn supports poverty alleviation. At the micro level, human capital built through education has the potential to increase an individual's chances of obtaining employment in the labor market and improve their capacity to earn higher income.

The role of human capital in the creation of intellectual wealth (intellectual assets) is crucial, as only human capital (human resources) can create knowledge and at the same time possess knowledge. Knowledge itself is the most important element in the process of creating organizational value, so the creation of a company's value is highly influenced by human capital (Strategic Human Resources). This opinion is consistent with the views of Edvinsson and Malone (1977), who stated that human capital (strategic human resources) is a combination of knowledge, skills, innovation, and the ability of employees to perform their tasks, including the values, culture, and philosophical aspects of human resources (strategic human resources).

Based on the analysis of the six studies discussed above, it can be concluded that some of the research conducted still lack proper research elements. There are studies that do not clearly define the population and sample of their research. As we know, in conducting research, it is essential to select the population and determine the sample size to represent the entire population. Among the six studies, two researchers did not specify their population and sample data, and one study mentioned the population but did not provide the sample size or details about the sample. On the other hand, three studies clearly defined their population and sample, even mentioning the sampling method used.

Regarding the research methods, there are two qualitative studies with phenomenology and descriptive methods, two quantitative studies with descriptive correlational designs and multiple regression analysis. Additionally, there are two studies that are purely descriptive, where the authors only presented expert opinions and summarized them.

Overall, while some studies showed a proper research design with clear population and sample determination, others lacked essential research elements, making their findings less reliable. Improving the research methodology and providing more detailed information about the population and sample will enhance the credibility and validity of the studies.

CONCLUSION

Based on the literature review conducted in this study, the following conclusions can be drawn:

1. The research methods commonly used in the studies are quantitative methods, and the main analytical methods involve mathematical techniques such as correlation, regression, and validation.
2. Human capital is crucial in all aspects of Higher Education. It encompasses students, educational personnel, faculty members, and the overall institution of higher learning.
3. Human capital in the context of Higher Education is closely related to social capital and intellectual capital.
4. Findings indicate that human capital plays a significant role in improving the quality of higher education institutions, students, educational personnel, and faculty members.
5. Future research could explore trends and focuses on human capital in enhancing personality development or narrow down the topic by focusing on specific elements within higher education institutions.

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