

EFFECT OF QUALITY MANAGEMENT PRACTICES, AND DIGITAL INNOVATION ON ORGANIZATIONAL PERFORMANCE MEDIATED BY COMPETITIVENESS STRATEGY AND MODERATED BY INDUSTRIAL COLLABORATION AT VOCATIONAL COLLEGES IN INDONESIA

ANTONIUS ARY SETYAWAN¹, HARJANTO PRABOWO², BOTO SIMATUPANG³
and YOSEF DEDY PRADIPTO⁴

^{1, 2, 3, 4} Binus University.

Email: ¹antoniussetyawan@binus.ac.id (Corresponding Author), ²harprabowo@binus.edu,

³bsimatupang@binus.edu, ⁴ypradipto@binus.edu

Abstract

The paradigm shift from Human Resources to Human Capital Development in the current digital era requires synergy between stakeholders in developing the country. In relation to the ideal of building superior community sustainability, there are two different approaches to stakeholder engagement to implement a successful plan, namely participation and partnership. These two things are different forms of collaboration; it needs to be adjusted to regional conditions such as human resource potential, infrastructure potential, and other potentials. This type of partnership and collaboration approach becomes a very ideal approach to community sustainability plans. Especially the high level of involvement of organizational stakeholders, such as local governments in collaborating with stakeholders in initiatives to build sustainable human resources. So, it is necessary to emerge collaborative strategic management involving decision-making and joint strategies to incorporate ideas from various stakeholders into the development of community sustainability plans. This plan involves key partners in implementing and committing to the objectives and actions to be implemented together. The purpose of this study is how to build superior human resources from both the private sector and the public sector through a collaborative strategic management approach and a human capital development approach, by producing several findings and recommendations. This research uses an exploratory descriptive method, utilizing literature data and data in the field both online and offline. The results of this study are recommendations for partnership patterns in improving the ability of superior human resources, including involving stakeholders through collaborative strategic management, in order to achieve collective goals and advance together.

Keywords: Quality Management Practices; Digital Innovation to organizational performance; Competitiveness strategy; Industry Collaboration; Vocational Universities in Indonesia

INTRODUCTION

The development of technology has resulted in changes in the needs of Human Resources in society. Digital technology in the last 20 years has changed several jobs that are currently carried out by human labour. About 30 percent of the tasks of two-thirds of possible types of work can be replaced by technology, such as robots or artificial intelligence (Allen, 2015). The disruption of employment and the expansion of automation require Indonesia to have superior human resources, including the ability to collaborate between humans and robots, the ability to

control and remote control (remote systems), digital performance management and work knowledge automation. Human Resource Development needs synergistic cooperation between stakeholders. Development in Indonesia has undergone a paradigm shift, the existence of industry 4.0 as a phase of the technological revolution changes the way of human activity in scale, scope, complexity and transformation, not only the development of economic, social and environmental aspects, but collaboration is the most important aspect today, such as socio-economic aspects, environmental economic aspects, and social environmental aspects.

This paradigm shift has an impact on changing the need for skills in the future, where there is a need for a balance between hard-skills and soft-skills. The improvement of superior human resources is a target that must be achieved by the government to prepare a solid foundation in building the country's economy, because through quality human resources is the key to a high-income country. Another paradigm has also emerged from human resources to human capital development to prepare reliable human resources in the current digitalization era.

Era 4.0 is a phase of the technological revolution that changes humans in their activities and even global uncertainty. On the other hand, humans are required to have the ability to predict a progressive future by responding to these changes in an integrated and comprehensive manner, including involving elements of global politics, the public and private sectors and academia.

However, from all existing paradigms, synergy and cooperation are needed in building the necessary human resources in accordance with the goals of the collective and various stakeholders. In relation to the ideal of building superior community sustainability, there are two different approaches to stakeholder engagement to implement a successful plan, namely participation and partnership. These two things are different forms of collaboration, and need to be adjusted to regional conditions such as human resource potential, infrastructure potential, and other potentials.

In the face of the destructive era of technology, humans must be able to change their way of activity in both scale, scope, complexity and transformation from previous experiences. The ability to be able to change quickly and have the ability to predict the future becomes a human solution in the face of uncertain life (uncertainty). Support from stakeholders from the public sector, private sector, academia to society is an integrated and comprehensive opportunity in facing the challenges of industry 4.0.

A tough challenge for the Indonesian nation is Indonesia's competitiveness and open unemployment rate reaching 5.33% or 7.01 million people from a total of 131.55 million people in the labor force in February 2017 (Central Statistics Agency, 2017). Another challenge is added to the demands of industrial needs, where the job market requires multi-skilled human resources and also the demographic bonus that will occur in 2030-2040, namely the population with productive age will be more than the non-productive population with an estimate of reaching 64% of the total Indonesian population.

THEORETICAL FOUNDATIONS

A paradigm shifts in Indonesia's development

Fundamentally, the development of Industry 4.0 has brought major changes in human life and changed the way of activities and brought a great influence on the world of work. The positive impact of industry 4.0 includes the effectiveness, efficiency of resources and production costs, but on the other hand there are consequences for reducing employment opportunities. The demands of industry 4.0 require a skilled workforce in digital, technological and human literacy (Suwardana, 2018).

Millions of new types of jobs are expected to emerge in the next decade as automation and artificial intelligence technologies evolve. For this reason, Indonesia needs to prepare for a transition of skills that will later be able to adopt technology. According to mckinsey & company analysis in 2015, Indonesia's economy in 2030 is projected to create new jobs that never existed before, and have the impact of encouraging increased income, infrastructure development, technology budgets, consumption and increasing economic growth (Allen, 2015). The type of work that will grow in the future is towards services such as data processing and physical work that can be estimated.

II.1. Human Resources and the Digital Age

In this era, humans are no longer considered as static goods and only take into account operational aspects and their welfare, but must be critical assets that cannot be plagiarized (not machines) because there has been a change in order, so another paradigm has emerged, namely the shift from human resources to human capital (Armstrong, 2008).

The progress of the nation is currently determined by the problem of human resources, where Indonesian human resources are still at a fairly low level. Only a small percentage of Indonesians are highly educated. Indonesia is among the four major countries whose population consists of multiculturalism and lives on various islands separated by space, distance and time. This large population is mostly in the age range of 15-64 years and this is often referred to as a demographic bonus, which encourages economic growth and per capita income. Digital technology will have an impact on creating 3.7 million new jobs in the next 7 years and the majority of job types are services (Suwardana, 2018). This is a challenge to improve self-expertise and continuous innovation.

Changes in mind-set and behavioral approach will create a good mentality and be formed in behavior. It is not easy to make a change in mind-set that results in strengthening mental character and expertise. Increasing the degree of self-competence and self-potential linearly will give birth to a prosperous, quality and superior society.

II.2. Human Resources

Human resources are human resources that drive organizations or companies to produce goods and services. If the quality of human resources is still relatively low, then the size of the population even with the structure of the proportion of productive age can also be a threat. Especially in the midst of a change in market winning orientation and instant cultural attitudes.

In addition, human resources are institutions or departments that are responsible for managing human resources in companies and organizations. In Indonesia, human resource development is carried out through education that has old literacy, new literacy and technological literacy related to the development paradigm of socio-economic aspects, economic-environmental aspects and social environmental aspects.

II.3. Human Resource Development

In the digital era that will create a digital economy, human resources are the main key in creating competitive advantage and efficiency in companies or organizations, where knowledge and expertise (skills) and communication skills (communication) with customers are important aspects in human capital, which describes a number of knowledges, expertise, and creativity in competing. Thus, Human Resources are treated as productive assets not as costs as well as machinery and raw materials (Hendricks, 2002). Human Capital is not just an input in a process, but plays a more complex role in processing goods and services. Human Capital deals with knowledge, education, competence and psychometric evaluation (Namasivayam & Denizci, 2006). This characteristic of human capital leads to a dynamic economic situation (Menziez, 2003). Currently, the growth and contribution of Human Capital in Gross Domestic Product is increasing rapidly, so Human Capital can be defined as a set of attributes, life trade, knowledge, creativity, innovation and energy that people invest in their work (Weatherly, 2003).

This paradigm shift has an impact on changing the need for skills in the future, where there is a need for a balance between hard-skills and soft-skills. Increasing the ability of human resources to become Human Capital is a target that must be achieved by the government to prepare a solid foundation in building the country's economy, because through human resources who have knowledge, skills, are creative, able to innovate and communicate with good morals is the key to a high-income country.

Based on the Law of the Republic of Indonesia No.20 of 2003 concerning the National Education System Chapter II article 3 states that national education has a function to develop abilities and dispositions in creating the nation's civilization. For this purpose, the occurrence of technology 4.0 is required to strengthen the identity of the Indonesian nation in the face of globalization.

Human Capital Development to prepare human resources to become reliable Human Capital in the current digitalization era. However, from all existing paradigms, synergy and cooperation are needed in building the necessary human resources in accordance with the goals of the collective and various stakeholders. In connection with the ideal of building the sustainability of the Indonesian people who are able to survive and are ready to compete in this Digital Era and are able to improve the digital economy in Indonesia.

II.4. Collaborative Strategic Management

According to data from EMSI, Oxford Economic Forecasting, US Bureau of Labor Statistics, in a McKinsey analysis in 2015, it showed 51.8% of potential job losses, where technology

encourages the creation of new types of jobs that are more productive and larger in number (Allen, 2015). This phenomenon shows that the current jobs are so vulnerable, if they are not prepared collaboratively and strategically. So, it is necessary to collaborate strategic management in involving decision-making and joint strategies to incorporate ideas from various stakeholders into the development of community sustainability plans. This plan involves key partners in implementing and committing to collective goals and actions to be implemented together in understanding social, economic and environmental aspects. Because the accumulation of human capital knowledge and skills is directly related to efficiency. In developed countries GDP increases linearly along with the training and education of the people. So that the accumulation of human capital can improve living standards, public health and reduce the crime rate which will ultimately increase economic growth in the long term (Carmeli & Schaubroeck, 2005). There are two types of approaches in human resource development, namely 1). Participation and 2). Partnership.

II.4.1. Participation

There are two different approaches to stakeholder engagement to implement a successful plan, namely participation and partnership. The concept of participation is the involvement of the parties in the short term with non-in-depth involvement. The participation approach can be used for the development of educational facilities such as buildings and educational equipment, especially for locations far from the city centre. In addition, participation in short-term training to improve the skills and abilities of human resources who already have basic knowledge becomes very effective and efficient. Because it has good human resource potential but does not have good educational, road and telecommunications infrastructure. However, in the concept of knowledge development, skills in the long term are needed in the concept of partnership, especially the high level of involvement of organizational stakeholders, such as local governments in collaborating with stakeholders in initiatives to build sustainable human resources.

II.4.2. Partnerships

The Concept of Partnership started from several construction industries in America written by the Construction Industry Institute in 1991 together with The Associated General Contractor of America, whereas in the UK information regarding partnerships was published by the Chartered Institute of Building Services Engineer in 1995 who was appointed to improve the performance of construction industry projects partnership as a long-term commitment between 2 or more organizations to achieve certain goals by making effective use of the resources of the cooperating parties to create optimal performance, competitiveness and improvement of goods and services (Cheng et al., 2000). While the term is used in the opinion of Wheelen and Hunger (2012), cooperative strategies are used by companies to achieve competitive advantage in the industry by cooperating with other companies. Thomas Piketty (2014), a French economist, in his book *Capital in the Twenty-First Century*, has reminded the importance of all three actors: entrepreneurs/industries, the academic community/universities and the government working together in response to change. The policy of the education system, access to the development of science (to acquire specific skills), as well as the institutional system in

the field of education are the keys to how a country is able to adapt to the very rapid transformation of industry. Piketty (2014) also mentions that knowledge diffusion depends on a country's ability to mobilize financing to encourage large-scale investment in the education, research and training sectors and ensure a stable legal framework. South Korea is cooperating between universities and industry in restructuring the curriculum so that students can understand how the theories they are studying can be applied in industry and what skills development and mastery of technology are needed in industrial areas. As well as providing a platform to connect universities and companies, through program programs such as Industry-University Cooperation and Industry-University Partnership Professors (Koschatzky & Stahlecker, 2010).

RESEARCH METHODS

The research method chosen is descriptive analysis, where this method serves to describe or provide an overview of the object under study through collected data or samples as it is without analyzing and making conclusions that apply to the public (Sugiyono, 2017). The problems in this study focus on the problem as it exists in secondary data, then the results of the research and analysis are processed to make decisions. So, to get collaborative strategic management, the analysis is taken from field data regarding the phenomenon of increasing human capital to face the industrial revolution 4.0 from the Ministry of National Planning / Head of the National Development Planning Agency. This research uses a descriptive method of analysis where to find out the phenomena that are currently occurring and conclusions are drawn as a recommendation.

RESULTS AND DISCUSSION

In achieving the target of Indonesia's Vision 2045, where 100 years of Indonesia's independence, competent human resources are needed. Strategic planning is needed to be able to build the whole Indonesian people by first getting to know the portrait of Indonesian human capital. Indonesia's Vision 2045 has 4 pillars of development in 2045, namely 1). Human Development and Mastery of Science and Technology, 2). Sustainable Economic Development, 3). Equitable Development, 4. Strengthening National Resilience and Governance, in order to realize a sovereign, developed, just and Prosperous Indonesia. In addition to the 4 pillars above, Indonesia has a target of increasing GDP from the original USD 3,877 in 2017, then USD 13,162 in 2036 and the final target in 2045 GDP per capita of USD 23,199. Of course, the target must be achieved through strategic management that is collaborative between government institutions, the private sector, the community, and academia. However, data in the field found several obstacles such as the proportion of Indonesia's highly educated population is still small; incompatibility of graduates with employment, labor productivity still needs to be increased. Therefore, it is necessary to approach Human Capital Development to improve the relationship between the workforce in the public sector and the private sector through the Human Capital Development Plan (HCDP), Critical Occupation List (COL) to enhance the talent pipeline, promote talent diversity and facilitate Talent Mobility.

The Government's plan to increase development plans to have 7 development agendas in the 2020-2024 RPJMN, one of which is increasing quality and competitive human resources. A quality and competitive human development framework includes healthy, intelligent, adaptive, creative, innovative, skilled and smart. The implementation of this framework, starting with basic services and social protection, then productivity to character building, leads to balanced population growth.

Collaborative Strategic Management needs to be synergized between stakeholders, so that increasing the competitiveness of human resources through increasing productivity can be achieved, such as industry involvement in vocational development, increasing the relevance and competitiveness of higher education, as well as mastering technology adopsi and creating innovations. In addition to the planned collaboration in increasing productivity, it is also necessary to support policies and strategies for industrial vocational education and training, one of which is the development of expertise, the provision of educational facilities, certification and entrepreneurship education. Collaborative Strategic Management is needed to support 2 policy directions and strategies, namely strengthening quality higher education and policy and strategy directions for strengthening science and technology. This encourages collaboration between universities and the industrial world in the long term and gets a win-win solution for both parties. Research in universities must be deployed to support efforts to master technology that benefits the people. The world of education as a printer of quality human resources and the cradle of innovation must be a key driver in helping the industry to increase production efficiently and sustainably.

CONCLUSION AND RECOMMENDATION

The conclusion of this study is that in improving human resources into Human Capital, it is necessary to have a partnership pattern model that involves stakeholders such as industry, educational institutions and the government to achieve collective goals and advance together, this is part of collaborative strategic management. The recommendation of the collaborative strategic management model is a new phenomenon in the world of education, industry and government. The success factors of this model are openness, transparency, responsibility for the thoughts of each party that are integrated in the long term. Where the parties have their respective responsibilities in carrying out the development model into Human Capital to support Indonesia's economic growth in the future.

The suggestion from the results of this study is that it is necessary to continue this research with the implementation of certain cases related to HR issues so that it can be more focused and in-depth. The recommendation from the results of this study is that collaborative strategic management is a meeting point in synergizing the direction and policies issued by the government, and is ready to be supported by stakeholders so that targets can be achieved through togetherness.

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