

Educational Leadership in Higher Education in the Era of Human Intellectual Capital

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Abstract—The purpose of this study is to describe educational leadership in tertiary institutions in the 21st century, which emphasizes human intellectual capital. The research method used is descriptive-qualitative, with data collection through observation, interviews, and documentation. Data analysis was performed through data reduction, data presentation, and conclusion. This research was conducted at the Library and Information Science Study Program (Perpusinfo) at the Indonesian University of Education. The source of the research data was lecturers at the library and information science study program. The results of this study concluded that in order to create human resources capable of becoming intellectual capital with innovation and adaptive attributes to inherent technology, it is necessary to adjust the management of higher education institutions through visionary educational leadership so that policies can be made that encourage creativity and innovation, and human resources collaborative in facing the industrial revolution. 4.0. This research can be used in changing work methods that focus on data management, industrial work systems through advances in technology, communication, and increasing work efficiency related to human interaction, and as well as prioritizing human intellectual capacity as the main capital in advancing education in higher education..

Keywords—college, educational leadership, human intellectual capital, industrial revolution 4.0

INTRODUCTION

Industrial revolution 4.0, where information technology has become the basis of human life. Everything becomes unlimited with the use of unlimited computing power and data because it is influenced by the development of the internet and massive digital technology as the backbone of the movement and connectivity of humans and machines. This era will also disrupt various human activities, including the fields of

science and technology (science and technology) and education.

Leadership is the main key to the success of higher education in an era of competitive competition, facing change, growing knowledge, increasing pressure on the skills that must be owned by the workforce, and pressure on accountability and transparency in the academic field [1]. The quality of higher education is strongly influenced by the role of leadership, commitment, culture, and performance of human resources [2]. Universities also face interests outside their environment, namely the interests of the government and society [3].

According to Ulrich's conceptualization of intellectual capital, it is a multiplication function of competence and commitment [4]. In line with Ulrich's opinion, Quinn et al. examine the characteristics and features of intellectual capital as different components that complement each other. This brings a new dimension to human capital analysis. Without being revolutionary, this methodology can be used for capital items that exhibit a high degree of complementarity [5]. Several studies show that superior human resources have an impact on resource performance [6]–[8]. confirmed by Barney (1991) that the organization will have a competitive advantage when certain assets, capabilities, or attributes are present. This means that when assets, capabilities, or processes are rare, valuable, difficult to imitate, and have few substitutes, they represent an important source of competitive advantage [9], [10]. Central to the value creation process is the combined capacity of organizations to use their resources, more or less uniquely, as intangible and tangible assets. The development of the notion of intellectual capital in relation to human capital seems to be a theoretical refinement worthy of discussion.

The dimensions of intellectual capital are categorized into three parts, namely, human capital, organizational

capital, and relational capital [4,5], argues that educators (faculty), researchers, educators (administrative staff), and students (human capital) are valuable resources of higher education, along with organizational processes (structural capital) and their relationship network (relationship capital). This resource, which is part of intellectual capital, is an intangible asset for the university and a significant resource for achieving organizational excellence and quality [11]. Higher education as a producer of knowledge, which consists of a knowledgeable society (intellectual capital) with learning abilities and innovation power, and as input that is processed through knowledge management, it is necessary to study educational leadership in higher education in the era of intellectual human capital.

LITERATURE REVIEW

A. Industrial Revolution 4.0

In the era of the Industrial Revolution 4.0, namely the era of openness, where the flow of information moves very fast and is integrated into every line, this revolution affects the entire production cycle, provides a new understanding in production and business management, provides ways to improve production processes, and increases competition.

Of course, all countries address this in the preparation of quality human resources. Countries that have the potential to develop have at least one thing in common: they prioritize educational development. In an effort to improve the quality of education in schools, one important aspect that needs to be considered is the development of the quality of graduate students in accordance with the challenges of the times.

The year 2045 is a marker for all of us as to the success or failure of developing human resources capable of responding to the challenges of the Industrial Revolution 4.0. According to Sakti (2017), Indonesia received a Demographic Bonus that year because there was an abundance of productive-age human resources on a large scale, which could be both a potential and a threat. This potential can be obtained if human resources are competent, so that they can contribute to spurring development productivity, while threats are faced when human resources are incompetent, so that the many human resources will only become a burden to the state.

In facing the R.I.4.0 era, the first thing that needs to be prepared is the leadership aspect. Schwab (2016: 13)

explains that the level of leadership and understanding of change needed in all sectors is still low when compared to the needs of the economic, social, and political systems to respond to the industrial revolution 4.0. As a result, both at the national and global levels, the institutional frameworks necessary to regulate the diffusion of innovations and reduce disruption are poorly managed and, in fact, do not exist at all.

industrial revolution 4.0, where information technology has become the basis of human life. Everything becomes limitless with the use of unlimited computing power and data because it is influenced by the development of the internet and massive digital technology as the backbone of the movement and connectivity of humans and machines. This era will also disrupt various human activities, including the fields of science, technology, and education.

B. Educational Leadership

The era of disruption, or Revolution 4.0, resulted in enormous world changes, not only occurring in technological tools but disrupting human behavior and describing sustainable behavior change. Sudden, uncertain, complex, and ambiguous (volatile, uncertain, complex, and ambiguous) changes necessitate a leader with vision, understanding, clarity, and who is not rigid [12].

The essence of educational leadership is the ability to influence and motivate others to achieve educational goals. The role of leaders in educational institutions as figures is indispensable in making policies and decisions so that various problems can be resolved even in the most complicated circumstances. The skills and abilities that must be possessed by a leader of an educational institution are leadership skills, communication skills, job management skills, self-management skills, and decision-making skills [13].

In addition to the above skills, educational leadership must also be able to bring change to the organization it leads (organizational transformation). The importance of leadership to the change management process is underscored by the fact that change, by definition, requires creating a new system and then institutionalizing the new approaches [14][15].

In general, organizations have the capacity to plan for change and anticipate the demands of change management. Organizational leadership has the capacity to influence employees' perceptions of change. However, the perception of change as a necessary advancement or a

distraction to be avoided hinges on the dynamic roles of senior executives and line managers during the entire transformation process [16]. Organizational leadership must skillfully map out its steps during the three interconnected phases. First, it must conceptualize a new strategic direction; second, leaders need to motivate organizational constituents by expressing enthusiasm and optimism; and third, leadership must effectively and efficiently distribute the resources (i.e., material and moral support) needed by stakeholders to facilitate the transformation process [17].

C. Human Intellectual Capital

The main thing that makes up intellectual capital is the knowledge possessed by human capital and existing capital in the organization (structural capital). Knowledge is the main component that can improve the competence of members of the organization, and structure is the arena where competence is implemented in performance to achieve organizational goals.[18].

Intellectual capital plays a very important role in the organization and is very strategic. Intellectual capital is the knowledge and skills of a social collectivity, such as an organization, an intellectual community, or a professional practice [19], Although at first the Skandia Navigator model assumed that IC had two components (human and structural capital), now most researchers agree that IC has three components, namely: human capital, structural capital, and relational (social) capital [20].

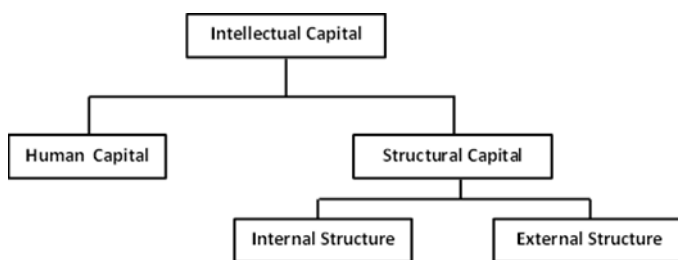


Figure 1 Division of Intellectual Models

Human capital is an important component of capital because it creates capabilities and competitive value for organizations. Human competence's ability to be embodied in performance will leave traces in the structural model, implying that humans (human capital) are the cause of various other capital. Human capital is an

accumulation of experience, education (knowledge building), and training, as well as other values that can improve human resource competence.

The structural model of capital is a framework in which human capital's value creation is stored; structural capital is an infrastructure for human capital as well as the effect of human capital's performance in creating value for the organization in achieving goals.

Internal structure is structural capital that is stored in or resides in the organization, while external structure is structural capital related to the organization's relationship with the environment, especially with customers, so it is often called relationship capital or customer capital [18].

METHODOLOGY

The research method used is descriptive-qualitative. Data analysis was performed through data reduction, data presentation, and conclusion. In addition, this study also uses literature studies by analyzing several journals and articles related to educational leadership in universities during the human intellectual capital era.

FINDING AND DISCUSSION

Strategic capabilities are a necessity in the "Industrial Revolution 4.0" era, where knowledge society and knowledge economy continue to develop, and must be continuously developed and developed. The strategic capability possessed by an organization will make its existence stronger and more stable, and its development will continue to increase. According to Hall and Hall (2003), strategic capability consists of three components: human capital, which describes the human competencies brought to work (such as skills, technical innovation, and leadership); structural capital, namely the management process that enables human capital to create markets and value; and relational capital, which are interpersonal relationships between members of the organization as well as relationships with other parties who can work together and collaborate (e.g., trust, customer loyalty, joint activities, license or certificate agreements).loyalty, joint activities, license/certificate agreements) [21].

The Library and Information Science Study Program (Perpusinfo) of the Indonesian University of Education, which has received A accreditation by the National Accreditation Board for Higher Education (BAN-PT) and in October just implemented International Agency for Quality Assurance (AQAS) accreditation,

The significance of the findings of this study shows that educational leadership in tertiary institutions, especially in the Library and Information Science study program, is good.

Human resources in the context of intellectual capital in the Library and Information Sciences Study Program can be seen from the abilities and skills of the 12 existing lecturers with civil servant (PNS) status; there are also lecturers who are awarded as outstanding lecturers in the university environment. Lecturers in the study program have qualifications for concurrent positions in the university environment, including head of the UPI Library, secretary of the UPI FIP Quality Control Unit (GKM), and UPI Public Relations staff. The academic competence of doctoral and postgraduate lecturers is increasing the academic competence of the study program leaders, which is very supportive for lecturers who wish to continue their studies in the doctoral program.

Structural capital. In supporting the process of increasing human capital, of course, it is supported by facilities for adequate and comfortable learning as well as smart classes, laboratories, podcast rooms, etc. In addition, curriculum development will be carried out every year, and the learning system implemented is blended learning, also supported by a management information system through an integrated learning management system such as SPOT UPI or SPADA UPI, and learning resources that can be accessed both directly and online through the repository.upi.edu service, as well as the journal *Journal of Library and Information Science*, which has been indexed by SINTA. The study program also has a mechanism in terms of guidelines, both for preparing the syllabus and lecture materials and for writing scientific papers in the form of journals, proceedings, and theses, which also refer to the university's scientific work guidelines. Students are also directed to publish journals as one of their writing skills. The learning evaluation system refers to the policies set by the university and the government.

Relational capital. It is an interpersonal relationship between organization members as well as relationships with parties who work together and collaborate. The relationships in the library and information science study program are very warm, like a family system, and everyone works together to build and advance the program. Relations with external parties continue to be well established, such as cooperative relations between library study programs at home and abroad, which are supported by student exchange programs and lecture

exchanges that have been running for about four batches. In addition, relational relations with internal customers (students, parents, and the community) are well established through various joint activities such as seminars, community service, student development in academic and non-academic fields, and so on. The library and information science study program also maintains good communication with alumni; this aims to review the extent to which graduates are absorbed in the world of work and allows for additional collaboration with alumni to work, which of course provides convenience in the learning process for students who will practice field studies.

Educational leadership in higher education in an era of disruption with very fast and uncertain changes must be accompanied by strategic behavior that can contribute to the success and survival of the organization. Such behavior must have a positive effect that is not rooted in the interests of a particular individual or group but rather encourages the spirit of the organization's strategic profile [11], as well as the process of forming a future vision involving subordinates [22].

Strategic leaders in tertiary institutions must have organizational capabilities to: 1) be strategically oriented; 2) translate strategy into action; 3) align people and organizations; 4) determine effective strategic intervention points. 5) Develop strategic competence; as a strategic leader, display 6) a dissatisfaction or anxiety with the present, 7) absorptive ability, 8) adaptive ability, and 9) wisdom [23].

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