



***THE EFFECT OF INDUSTRIAL DISRUPTION 4.0, THE ACHIEVEMENT OF
THE WORLD CLASS UNIVERSITY TO THE TRANSFORMATION OF THE
LEGAL ENTITY STATE UNIVERSITY TO HIGHER EDUCATION
PERFORMANCE***

¹Khaerun Nisa, ²Syamsuddin, ³Sabir

¹Regular Student of Master of Accounting Study Program, Hasanuddin University

(email: khaerunnisaicha5757@gmail.com)

*²Lecturer at the Faculty of Economics and Business Accounting Department, Hasanuddin
University*

(email: Syamwadi88140@gmail.com)

*³Lecturer at the Faculty of Economics and Business, Head of the Sub Division of Quality
Assurance, Hasanuddin University*

(email: sabirfeuh@gmail.com)

Correspondence Address:

Khaerun Nisa, S.Pd
Faculty of Economics and Business
Hasanuddin University
Makassar, 90245
Handphone: 081356071598
Email: khaerunnisaicha5757@gmail.com



Abstract

The phenomenon of the industrial revolution 4.0 which is tight with competition on the global competition stage brings acceleration and reach that has an impact on technological transformation and industrial change, especially the Higher Education industry, Changes in Higher Education Paradigm, The Viral Book of Sudaryono 2017 "Mass suicide of higher education towards assembling education", rejection, criticism and distrust of the Legal Entity State University Transformation, the phenomenon of Higher Education Bureaucratic Reform and Higher Education Sustainability is the background of this research. This study aims to measure the effect of industrial disruption in 4.0 efforts to achieve a world class university so that state universities must switch their status to Legal Entity State University on university performance. By using the Balanced Scorecard (BSC) perspective approach as a performance measurement for both financial and non-financial performance and incorporating measurements of quality, quality culture, competitiveness, output relevance and academic competence, challenges and needs of higher education human resource management in achieving world class university, the international performance of the faculty and the performance of human resources. This research was conducted using primary data in the form of a questionnaire distributed to one of the State Legal Entity State University in the East with a research population consisting of high-ranking officials, lecturers and staff. This research was also conducted by taking secondary data from several Legal Entity State University throughout Indonesia which were shared via the internet. This research was conducted when the Covid 19 outbreak hit almost all countries in the world, therefore this study also uses primary data in the form of an online questionnaire to anticipate respondents who are exposed to "work from home".

Keywords: Industrial Disruption 4.0, World Class University, Transformation of Legal Entity Higher Education, Performance, Balanced Scorecard, Quality Culture, Competitiveness, Output Relevance and Academic Competence, Challenges and Needs of Human Resource Management, Faculty International Performance, Human Resource Performance.



INTRODUCTION

The phenomenon of the era of the industrial revolution 4.0 which is tight with competition on the global competition stage brings speed, acceleration and reach that have an impact on technological transformation and industrial change to become a challenge for the development of science and opportunities for higher education, especially the higher education industry (Schwab. World Economic Forum, 2016) . Mohammad Nasir said the importance of supporting the acclimatization of mindset infrastructure using a new paradigm of higher education, with changes in the learning process, data processing, industrial work systems, communication and increased work efficiency, collaborating intellectual and artificial intelligence in creating imaginative, reliable, dynamic thinking human resources and flexible (www.ristekbrin.go.id).

The phenomenon of the Higher Education Bureaucracy by the Ministry of Research, Technology and Higher Education can be seen in management and organizations in the Industrial Revolution Era 4.0. The ministry of educational research and technology efforts to combine three based factors which include environmental factors as measured by the challenges of Cyber Tech, IoT, Competition, Cloud Computing; strategy factors as measured by the Business Model, and Technology; structural factors measured by Creativity, Innovation, and Multi which are directed at one goal (main goal), namely performance (www.unp.ac.id).

The implementation of effective empowerment of intellectual human resources (lecturers) professionalism will greatly determine the professionalism of the bureaucratic reform of higher education as a whole in carrying out the mandate of the higher education of tridharma. Fox and Meyer in Roux (2002: 424) in Sudrajat (2014) say that the policy context made by the state or government is often referred to as public policy. This is in line with what Parsons (1997: 31) stated in Sudrajat (2014) that "several key areas of public policy including health, transportation, education, environmental social policy", one of which is to empower educational intellectual human resources. high (lecturer) ”.

Although at the beginning of the efforts to reform higher education to become a legal entity university with the right to autonomy for higher education, it received a lot of criticism and ridicule and fear from the majority of intellectuals and scientists about legality efforts towards the commercialization of higher education institutions in Indonesia, but in the end it was through the Law. Number 12 of 2012 concerning higher education article 64 Higher Education has the right to autonomy education to change its status to a legal entity higher education. Fasli Jalal (director general of the Ministry of Research and Higher Education of the Ministry of National Educationdirector general of the ministry of research and higher education) said that Legal Entity State University were born out of demands for the transformation of the management of higher education in Indonesia

which tend to be centralized, tough and cold, giving the impression that education funding seems slow by shifting the bureaucratic work model of higher education that is stuck in service management and limited space into output-oriented performance-based budgeting (www.uinjkt.ac.id, 2009). Legal Entity State University which includes autonomy in independence, justice and adaptability to be more productive (Wahab, 2004). The transformation of Legal Entity State University appears as a new face with a change in the pattern of governance of state universities that is directed at good governance or Good University Governance (democratic, transparent and accountable) with autonomous management patterns, more adaptive and flexible, able to learn all the time, critical, innovative, creative and able to work together (Muhi, 2012). As of December 31, 2015, the government has designated 11 universities as Legal Entity State University

Several studies related to the autonomy rights of higher education regarding the effectiveness of legal entity tertiary institutions are Lasambow (2013) which concluded that higher education must have competitiveness, higher education autonomy is needed to support the essence of higher education as seekers, inventors, defend, and uphold the truth which is manifested through application of scientific autonomy and academic freedom. Autonomy allows education providers to try to improve the quality of their education independently. Higher education institutions that already have authority in the academic aspect as part of educational autonomy, need to increase their innovative and creative abilities to obtain funding sources that can support their educational activities. Tom Christensen (2011) in his research states that a number of potential problems from the autonomy of state universities are alternative sources of finance or their independent funding obtained from external stakeholders, cultural change and improvement of managerial components will advance academic professional and also increase the strength of the possible environment. will cut the expansion of university autonomy.

In addition to the phenomenon of industrial disruption 4.0 and efforts to transform higher education in Indonesia into legal entity tertiary institutions as a form of bureaucratic reform for higher education, another phenomenon among academics is about the spread of critical scientific articles Ohoitmur (2018) "Disruption: Challenges for the Development of Science and Opportunities for Educational Institutions High which describes a critical view of the sustainability of the life of a university in both contradictory understandings of the spread of "disruption" which is interpreted as a challenge (disturbance) by Fukuyamah and vice versa by Christensen as an opportunity for innovation and creativity, as well as a critical scientific view. which is contained in a book that has gone viral for several consecutive years by Sudaryono (2017) entitled "Mass Suicide of Higher Education Towards Assembling Education".

Regarding the natural instinct of every university in the world to survive and carry on their life (sustainability) in the midst of tight and mushrooming challenges and obstacles that

do not only come from the field of information technology known as "industrial disruption 4.0" but in all aspects of life. Also how universities maintain their life balance from internal and external funding that are able to obtain government support, which is known as the manifestation of large-scale government awareness with large-scale government bureaucracy in the higher education sector known as the higher education autonomy movement embodiment of higher education bureaucratic reform, which in finally gave birth to the transformation of higher education known as "the transformation of state universities with legal entity state university " to be able to legalize and regulate the laying of the vision and mission and objectives of transglobal and international higher education in one direction of higher education policy but still in accordance with the tridharma of higher education, namely "stepped foot in respect on the red carpet for the world class university international ranking known as "world class university".

Based on the problems in this study, it is related to the performance of state universities that have been transformed into legal entity state university to the global phenomenon of "industrial disruption 4.0 and world class universities (wcu) using the Balanced Scorecard (BSC) perspective approach as a measurement. performance for both financial and non-financial performance and includes measurement of quality, quality culture, competitiveness, relevance of output and academic competence, challenges and needs of higher education human resource management in achieving world class universities, international performance of faculties and human resource performance. This is a global problem that occurs in almost all parts of the world, and is being hotly discussed, even fought for, not only by the intellectual community of universities, intellectuals and scientific experts, but also by the government to the stage where it hopes that it can be accepted easily and actively participate in the general public and the general public. Although initially there were criticisms, threats and distrust due to "closed mindedness" and a lack of understanding about legal entity state, which was then followed by a major technological upheaval in "artificial intelligence", as a form of disruption of industry 4.0, to negative perceptions from some circles, of fraud that may exist due to the legalization and privatization of state universities in Indonesia.

By trying to formulate this research problem into several research questions as follows:
(1) Does industry 4.0 disruption have a significant effect on higher education performance?
(2) Is the achievement of a world class university classified as a mass suicide of higher education or is it an opportunity that has a significant effect on university performance?
(3) Does the transformation of legal entity state university.

significantly influence higher education performance? (4) Is the effect of the transformation of legal entity state university able to answer the industrial disruption 4.0 significantly on university performance (5) Is the effect of the transformation of legal entity state university able to answer the challenges of a world class university significantly on higher education performance? (6) Can the influence of industrial disruption 4.0 and the achievement of world class university significantly affect higher education performance by the transformation of legal entity state university Meanwhile, the objectives of this study are six, namely: (1) To test and analyze the potential effect of industrial disruption on higher education performance. (2) To test and analyze the effect of achieving a world class university whether or not it is a mass suicide act on university performance. (3) To test and analyze the effect of legal entity state university transformation on university performance. (4) To test and analyze the effect of the transformation ability of legal entity state university in responding to industrial disruption 4.0 on university performance. (5) To test and analyze the effect of the transformation ability of legal entity state in responding to world class university challenges on higher education performance. (6) To test and analyze the transformation ability of legal entity state university in responding to industrial disruption 4.0 and the challenges of world class university its impact on higher education performance.

LITERATURE REVIEW AND RESEARCH FOCUS

Industrial Disruption 4.0

Davis (World Economic Forum, 2016) defines the industrial revolution 4.0 as technological advances and new approaches that combine the physical, digital, and biological worlds that change the pattern of life and human interaction into industry and job competition becomes non-linear. Lee et al (2013) explained that Industry 4.0 is characterized by four factors: 1) increased data volume, computing power and connectivity; 2) the emergence of business analysis, skills and intelligence; 3) the occurrence of new interactions between humans and machines; 4) improved digital transfer instructions to the physical world, such as robotics and 3d printing. Liffler and Tschienner (2013) added that the basic principle of industry 4.0 is the combination of machines, workflows and systems by implementing an intelligent network along the chain and production processes to control each other independently. Tjandrawinata (2016) said that the unique characteristic of industry 4.0 is the application of artificial intelligence. Brodjonegoro (2018) explains that revolution 4.0 as a future challenge must be anticipated by creating social skills.

The new paradigm of higher education must be able to equip educators with a maturity level of social skills and be supported by all units of government institutions and education stakeholders. A paradigm shift in higher education must be included in the Long-Term Development Plan for the 2045 vision of education, which is the basis for Brodjonegoro's (2018) national development policy. Barber,

Donnelly, and Rizvi (2013) state that developed countries, which have been the centers of science and technology development, are facing unbearable rapid changes and cannot be easily overcome with existing instruments. It is estimated that the higher education system in Indonesia will also face disruptive changes --- overturning the prevailing system until eventually there will be fundamental changes in our entire education system.

World Class University (WCU)

World Class University is often defined as an international assessment, ranking, and recognition at universities or campuses in various countries. Levin, Jeong and Qu (2006) mention several benchmarks for the international recognition scale of world class university as follows: 1. Research excellence (excellen in research) is assessed through research quality, research productivity and creativity, the number of donor agencies willing to help research, there are patent rights and the like, 2. Academic freedom and an atmosphere of intellectual joy, 3. Strong self-management, 4. Adequate facilities and funding, including collaboration with international institutions, 5. Diversity, including the campus must inclusive of various social domains that are different from students, including the diversity of scientific domains. 6. Internationalization, for example the internationalization of programs by increasing student exchanges, the entry of international students.

Quacquarelli Symonds (QS) World University Ranking (QS-WUR) uses 6 (six) indicators in university ranking, namely: 1). Academic reputation, based on a global survey of academics (40%), 2). Employer reputation, based on a global survey of graduate employers (10%), 3). Faculty / student ratio, an indication of a commitment to teaching (20%), 4). Citations per faculty, an indication of reserach impact (20%), 5). International student ratio, measuring international diversity of the student community (5%), 6). International staff ratio, measuring international diversity of the academic faculty (5%). Collecting data related to increasing the ranking of a university focuses on academic and research activities that can increase the number of foreign lecturers and students through educational and research collaborations such as double / joint degrees, international classes, postdoc and others.

Herdarman, in Zulfa (2012) states several components that universities must have in order to achieve a world class university, including:

1. World Reputation	2. Prominents Graduates:	3. Research Performance:	4. International participation.
Third-party Endorsement	(1) Celebrities of national culture,	(1) Research output:	
Little room for engineering	(2) Community leaders,	a) Research assessment Exercises,	

	(3) <i>International figures,</i>	b) <i>Dominance of Anglo-saxon research culture,</i>	
		(2) <i>Strategic capacity building:</i>	
		a) <i>Strategic of resources on selected areas,</i>	
		b) <i>Concentration of talents,</i>	

<u>Global Ranking</u>		
<i>a. Time Higher Education Supplement:</i>	<i>Shanghai Jiating World University Ranking.</i>	<i>c. Webometrics Ranking of World Universities</i>
(1) <i>Peer review (5,101) (40%);</i>	(1) <i>Alumni as Nobel Laureate (10%);</i>	(1) <i>Web size (20%)</i>
(2) <i>Employee review (1,471) (10%);</i>	(2) <i>Faculty as Nobel Laureate (20%);</i>	(2) <i>Rich files (15%),</i>
(3) <i>Student/Teacher ratio (20%);</i>	(3) <i>Highly-cited researchers (20%);</i>	(3) <i>Scholar (Google) (15%),</i>
(4) <i>Citation index (20%);</i>	(4) <i>Articles in Nature and Science (20%);</i>	(4) <i>Visibility (Link) (50%);</i>
(5) <i>International Teachers (5%)</i>	(5) <i>Articles in SCI (20%);</i>	
(6) <i>International Students (5%);</i>	(6) <i>Size 10%,</i>	

QS (Quacquarelli Symonds) is one of the leading higher education research institutions which was engaged in 2010. QS (Quacquarelli Symonds) released and stated that there are several criteria that must be met by universities to get international accreditation, including: 1. Educational Quality, the content of the assessment in This indicator is an assessment of domestic quality, higher education research productivity is based on the number of national and international journals, citations used by other academics in research and awards that are often received by universities. 2. Graduate work, focuses on academic strength, the ability of graduates to work effectively in multicultural teams, the ability of graduates to present and manage employees and projects, as seen from a survey of employers, the level of graduate employment, and the level of support for career services. 3. Teaching Quality, this indicator focuses on assessing the quality of local teaching, student feedback, surveys and the ratio in each faculty. 4. Infrastructure, the indicators make students know what they will do when they become students. 5. Research Quality, measured by how much research is produced by a

university and how much the research results are accessed internationally viewed from abroad.

6. International quality, seen from how much student enthusiasts from abroad are interested and how much society absorbs university graduates (edukasi.kompas.com).

One of the indicators towards a World Class University (WCU) is the implementation of international programs at higher education institutions through the development of teaching staff and institutional recognition through student and lecturer exchange programs. Joint research and double degree / joint degree programs with partner universities abroad, double degrees can also be developed in ready-made study programs. Double / Joint Degree is an educational implementation that allows program participants to obtain double degrees, namely degrees from their own universities and from partner universities as well as recognition from both parties. Kusmantoro said that higher education institutions that have the goal of achieving WCU, and other tertiary institutions - the challenges of human resource management in these universities have difficulty adopting a world class university-grade value system to be developed seriously - properly in legal instruments until its formation. global quality culture (global quality culture).

Transformation of Higher Education Legal

Legal Entity State University tertiary institutions are state universities established by the government with the status of autonomous public legal entities, both in the academic and non-academic fields covering finance, administration and institutions. The autonomy of PTN-BH is regulated in Law Number 12 of 2012 concerning higher education article 64.

Achjari (2018) explained that campus autonomy is indeed the spirit of a university. The autonomy of the campus is not only freedom of the academic forum, but also non-academic autonomy, including in the fields of finance, human resources, and the development of facilities and infrastructure. Non-academic autonomy is needed factually based on experience in managing state universities (PTN). Achjari continued that there needs to be more attention to the government's statement stating that it is hoped that in the future universities throughout Indonesia can develop into world class universities, which are able to compete on the international stage and be able to collaborate actively with world-renowned universities. Higher education institutions need flexible forms and mechanisms in financial management and good university governance (Good University Governance) sourced from the State Budget and other funding sources.

Higher Education Performance

Sagala (2010) defines performance as the work achieved by institutions. Performance is a description of the level of achievement of the implementation of an activity, program, policy, in realizing the goals, objectives,

vision and mission of the organization. Performance as a result of work must be concretely proven so that it can be measured and compared with the standards set for the achievement of an institution's goals (Muhyi, 2011). Tampubolon (2014) explains that there are two factors that affect performance, namely internal and external factors. Internal factors are factors that are associated with a person's characteristics. Meanwhile, external factors are factors that influence a person's performance that come from their environment, such as behavior, attitudes and actions of colleagues, subordinates or leaders, work facilities and organizational climate.

The word performance (performance) in the context of tasks is the same as job performance. The definition of performance can be interpreted as the appearance of the work of personnel both in quantity and quality in an organization (Sumamur, 2001) in Permanasari (2014). Performance is the result of work in quality and quantity achieved by an employee in carrying out his duties with the responsibility given to him (Mangkunegara, 2005). Lecturer performance will be optimal, if it is integrated with higher education components, be it high-ranking leaders, lecturers, employees and students (Makmuriana, 2014). Siagian (2008; 25-26) in Sasono (2014) states that one of the challenges that will be faced by organizations or institutions of activity in the future, including in universities is to create organizations or institutions that are increasingly diverse, but at the same time demand more efficient management, effective and productive. The dependence of the organization on human resource management, which is increasingly high quality, will be even greater. Siagian (2008; 55) in Sasono (2014) states that there are several internal challenges of higher education in human resource management for lecturers, among others; 1) strategic plan, 2) budget, 3) estimation of graduates, 4) new business or activity, and 5) design of institutions and work assignments.

The performance of higher education HR management is the success in developing the potential of lecturers, being able to empower the higher education HR components through optimal action on the factors shaping the personal work productivity of lecturers and lecturer functional groups. This is in line with the opinion of Castetter (1982; 275) in Sasono (2014) which states that development should be viewed as an activity to increase the ability of individuals and groups so that they are more responsible in the system being formed. Brojonegoro in Mayasari (2017) suggests that to improve competitiveness and quality of higher education, it can be seen from the performance indicators of higher education. The indicators are: 1) quantity and quality and relevance of graduates; 2) the quantity and quality as well as the relevance of research and development; and 3) quantity and quality as well as the relevance of community service activities.

The real strength of the Balanced Scorecard lies not in its ability as a measure of executive performance, but in its ability as a strategic planning tool. The Balanced Scorecard extends the executive performance measures to the four financial, customer, process and learning growth perspectives. Based on the Balanced Scorecard approach, the financial performance produced by executives must be the result of realizing performance in satisfying customer needs, implementing productive and cost effective processes, and / or building productive and committed personnel, see Figure 3 (Mulyadi page: 5 in Pratolo, Jatmiko, Manuhara, 2015).

Figure 3. Balanced Scorecard Approach to Extending Executive Performance Measures to a Non-financial Perspective: Customer, Process, and Learning and Growth.

Tabel 1.1 Unsur-unsur Balanced Scorecard (BSC)

PERSPECTIVE	EXECUTIVE PERFORMANCE SIZE		
FINANCE	Income Growth	<div style="border: 1px solid black; padding: 2px; text-align: center;">EVA</div> (Asset Turnover)	Cost Effectiveness
CUSTOMER	Number of New Customers	Number of Customers who become	Customers service time speed
INTERNAL BUSINESS PROCESS	Cycle Time	On-Time Delivery	Cycle Effectiveness
LEARNING AND GROWTH	Skill Coverage Ratio	Quality Work Life Index	

Source: Balanced Scorecard concept, History and excellence in Mulyadi (page: 5) in Pratolo, Jatmiko, and Manuhara, 2015)

Kaplan and Norton add to our knowledge of how the balanced scorecard (BSC) can equip managers with an integrative framework for managing organizational activities (Hoque, et.al. 1997; Creelman 1996). The case study conducted by Fisher and Brancato (1995) in Ittner and David, (1998) adopts non-financial measurement. Kaplan and Norton (1996) in Chang and Chow (1999) identified four main steps in implementing BSC: (1) clarifying and translating the vision and strategy (2) communicating and connecting, (3) planning and setting targets and (4) baiting turning and strategic learning. From the description above, the research framework used is as follows:

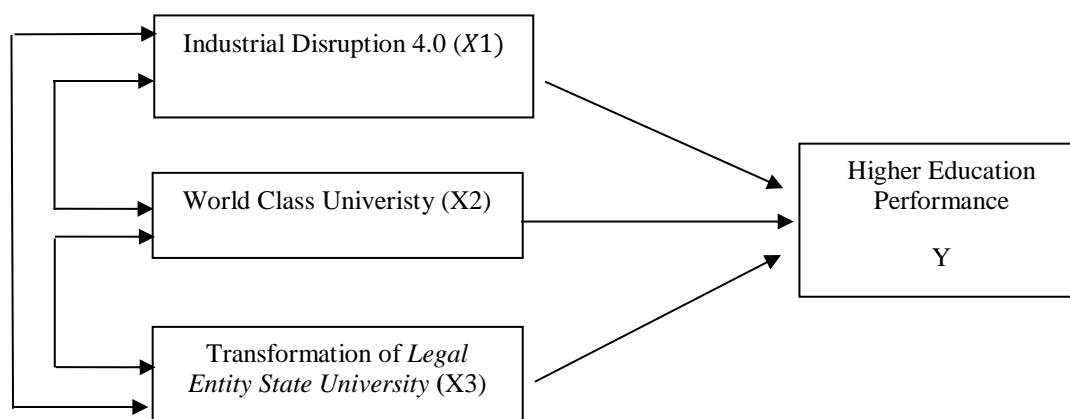


Figure 3.2 Research Framework

RESEARCH METHODOLOGY

Research Design

The research design is an explanation of the various components that the researcher will use and the activities that will be carried out during the research process. According to Bungin (2011: 97) research design is a design, guidelines or reference for research to be carried out. The preparation of a research design is a very important initial stage in the research process (Martono, 2011: 131). This research was conducted at Hasanuddin University on staff or employees, deans and high ranking officials as well as lecturers who are both Civil Servants and Non-Civil Servants.

The type of research used is verification research (verificative research) or hypothesis testing research (hypothesis testing research). This research is causality, because in addition to measuring the strength of the relationship between two or more variables, it also shows the direction of the relationship between the independent variable and the dependent variable (Sugiyono, 2016).). In addition, the terms dependent variable and independent variable only exist in the relationship between variables that are causality (Sanusi, 2011: 50).

Location and Time of Research

The location of this study is the population taken from the entire academic community of Hasanuddin University who have been declared as Legal Entity State University and have also won the title of World Class University. The time spent on research was three months in 2020.

Population, sample and sampling technique

The population in this study were all Deans and high ranks, employees and lecturers of Civil Servants and Non-Civil Servants at Hasanuddin University in 2020. The sample of this study was selected based on the purposive sampling method, using sample criteria were civil servants and lecturers of civil servants and non civil servants. who played a role in the development of higher education. The sampling technique used was purposive sampling based on data that can be obtained from universities and from online sites.

Types and Sources of Data

The data in this study are primary and secondary data. Primary data is obtained directly using a list of questions or questionnaires to respondents related to the purpose of this study. Meanwhile, secondary data is obtained from a list of staff and lecturers, both PNS and Non

PNS, from various related literature, both in the form of notes, documents, archives, and articles, either directly obtained during primary data collection or from the internet. The data obtained are then compiled and processed according to the interests and objectives of the study. The research data was obtained from publications issued by universities and by the government as well as data published by ranking organizations such as QA Asian University Ranking (AUR), Quacquarelli Symonds (QS) World University Ranking (QS-WUR), Time Higher Education Supplement (THES), Shanghai Jiating World University Ranking, Webometrics Ranking of World University.

Data Collection Methods

The data collection method in this study is to fill out a questionnaire and the questionnaire is a list of written questions that have been formulated beforehand which respondents will answer (Sekaran, 2014: 82). Respondents in this study were all samples, namely the questionnaire arranged on a Likert scale which was designed to examine how strongly the subject agreed or disagreed with the statement on a 5 (five) point / point scale. Answers are scored using a 5 (five) point Likert scale. The choice of basic research answers used for each question / statement is a score of 1 (one) for the answer to strongly disagree (STS), a score of 2 (two) for the answer to disagree (TS), a score of 3 (three) for the answer to doubt (R), a score of 4 (four) for the answer to agree (S), and a score of 5 (five) for the answer to strongly agree (SS) (Sekaran, 2014: 31).

The list of questions / statements (questionnaire) in this study was compiled by referring to the operational structure of the research variables. The data collected was then recapitulated in the form of a coding sheet arranged in a cross-sectional manner and then processed and analyzed. Data collection is carried out to obtain the information needed in order to achieve the research objectives. The research data were collected using a survey method with a questionnaire technique, namely by distributing the questionnaire online, or meeting in person.

Research variables and operational definitions

Research variables

The definition of operational variables is the definition given to a variable or construct by giving meaning or specifying activities, or providing an operation needed to measure these variables (Sekaran, 2013). The endogenous variables in this study are university performance

and the exogenous variables are industrial disruption 4.0, world class university and the transformation of Legal Entity State University. These variables can be grouped as follows:

1. Exogenous variables are variables that influence or cause changes or the emergence of dependent or dependent (endogenous) variables, either positively or negatively, that is, if there are exogenous variables, endogenous variables are also present with each unit increase in the exogenous variable, and there is also an increase. or a decrease in endogenous variables (Sugiyono, 2013). In this study, there are three exogenous variables, namely: industrial disruption 4.0 (X1), World Class University (X2), and Legal Entity State University Transformation (X3).

2. Endogenous variables are variables that are of major concern to researchers. This endogenous variable is a variable that is affected or that is the result, because there is an independent variable (exogenous) (Sugiyono, 2013). The endogenous variable in this study is higher education performance (Y).

References:

- Achjari, D. (2018). "Otonomi dan PTN Badan Hukum".
- Atkinson, A. A., Waterhouse, J.H., & Wells, R.B. (1997). A stakeholder approach to strategic performance measurement. *Sloan Management Review*, 38(3), 25-37.
- Barber, M., Donnelly, K., & Rizvi, S. (2013). *"An avalanche Is coming Higher Education and The Revolution Ahead". Voprosy Obrazovaniya/Educational Studies.*
- Birokrasi Pendidikan Tinggi. Kementrian Riset, Teknologi dan Pendidikan Tinggi.
<http://www.unp.ac.id/2020/01/21>. (www.unp.ac.id)
- Brodjonegoro, S.S. (2018). Revolusi 4.0 dan Pendidikan.
<http://edukasi.kompas.com/23/5/2020>.
- Christensen, Tom. (2011). *University Governance Reforms: potential problems of more autonomy?. High Edu.*
- Davis, Nicholas. (2016). *What is the fourth industrial revolution ? : A new era is beginning that builds and extends the impact of digitization in unanticipated ways.*<https://www.weforum.org/agenda/2016/01/19>.
- Lasambow, M.C. (2013). Analisis Kebijakan Tentang Otonomi Perguruan Tinggi Dalam Bentuk Badan Hukum Pendidikan.
- Lee, Jay, Edzel Lapira, Behrad Bagheri, and Hung an Kao. (2013). *"Recent Advances and Trends in Predictive Manufacturing Systems in Big Data Environment."* Manufacturing Letters.

- Liffler, Markus, and Andreas Tschiesner. (2013). *"The Internet of Things and the Future of Manufacturing.* McKinsey & Company." Mckinsey.com.
- Makmuriana, L. et. al (2014). Hubungan Gaya Kepemimpinan Transformasional dan Motivasi Pimpinan Perguruan Tinggi Kesehatan dengan Kinerja Dosen
- Mayasari, I.L. (2017). Leadership Dan Birokrasi Perguruan Tinggi. HIKMAH: Jurnal Pendidikan Islam Vol. 6, No. 1 Januari - Juni.
- Menristekdikti Nasir. (2018) : Indonesia Siap Menyambut Globalisasi Pendidikan dan Revolusi Industri ke -4. <http://www.ristekbrin.go.id/2020/04/21>.
- Muhi, A.H. (2012). Membangun Good Governance Pada Perguruan Tinggi di Indonesia. <http://alimuhi.staffpdn.ac.id/2018/01/21>.
- Muhyi, Encip Syafruddin (2011). Kepemimpinan Pendidikan Transformasional. Jakarta: Diadit Media Press.
- Ohoitmur, J. (2018). Disrupsi: Tantangan bagi Perkembangan Ilmu Pengetahuan dan Peluang bagi Lembaga Pendidikan Tinggi.
- Permanasari. R, Setyaningrum. M.R, Sundari. S. (2014). Model Hubungan Kompetensi, Profesionalisme dan Kinerja Dosen.
- Sagala, Syaiful. (2010). Supevisi pembelajaran dalam Profesi Pendidikan. Bandung: Alfabeta
- Sasono, Eko. (2014). Manajemen Sumber Daya Manusia Perguruan Tinggi; Tantangan dan Kebutuhan. Jurnal STIE Semarang, Vol. 6, No. 2, Edisi Juni 2014 (ISSN: 2252-7862).
- Schwab, Klaus. (2016). *"The Fourth Industrial Revolution: what it means, how to respond"*. <https://www.weforum.org/agenda/2016/01/14>.
- Sudaryono (2017). "Bunuh Diri Masal Perguruan Tinggi Menuju Pendidikan Assembling". Kompas.27/08/2017.
- Sudrajat, T. (2014). Impelementasi Kebijakan Pemberdayaan Dosen Dan Profesionalitas Birokrasi Perguruan Tinggi Swasta.
- Sugiyono. (2013). Metode Penelitian Kuantitatif, Kualitatif dan R&D. Bandung :Alfabeta.
- Sugiyono. (2016). Metode Penelitian Kuantitatif, Kualitatif dan R&D. Bandung :Alfabeta.
- Tampubolon, L. R. R. (2014). Manajemen Kinerja Sumber Daya Manusia (P. Christian, Ed). Yogyakarta: C.V. Andi Offset
- Tjandrawirana, R.R. (2016). Industri 4.0: Revolusi indusstri abad ini dan pengaruhnya pada bidang kesehatan dan bioteknologi. Jurnal Medicinus, Vol 29, Nomoor 1, Edisi April.
- Undang - Undang Republik Indonesia Nomor 12 tahun (2012) Pasal 64 Otonomi PTN-BH.* Jakarta: Menteri Hukum Dan Hak Asasi Manusia Republik Indonesia.
- Zulfa, Umi. (2012). *Transformasi Internasionalisasi Perguruan Tinggi Menuju World Class University.* LITERASI, Volume. III, No. 1 Juni 2012.

Aspek Pengelolaan Keuangan Pada Perguruan Tinggi Negeri yang berstatus Badan Hukum Pendidikan (BHP). (2009). <http://www.uinjkt.ac.id/2018/01/21>.

© GSJ