Concept Mapping for Strategic Priority of State Universities in the Disruption Era

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Abstract: The purpose of this research was to explore the strategic priorities needed by universities in the disruption era. This type of research is exploratory research, which is a study that discusses various information, namely exposing and exploring ideas. The research method used in this study is qualitative grouping through the 'idea networking' to obtain relevant information disseminated by the university. The results of the study show that strategic priorities of state universities in Indonesia in the disruption era have several important points, namely: Tridharma of higher education, competitiveness, GUG, networking, innovation, accessibility, local wisdom, entrepreneurship, multidisciplinary and up to date. This is expected to provide important information for state universities to face the challenges in the era of disruption. In addition, the results of this study can be used as research to conduct further research on the strategic priorities of higher education.

1 INTRODUCTION

The development of universities in Indonesia looks encouraging when viewed quantitatively. However, qualitatively, the quality of higher education still needs to be improved. Quantitatively, it can be seen from the development of the number of universities in Indonesia. Based on data from the central statistic agency in 2008-2014, the growth of higher education institutions in Indonesia as a whole is 3.41% (BPS, 2015). It can be said that some of the growth in higher education is driven from below. After taking secondary education, the desire of graduates to continue their education to a higher level continues to increase to almost 6 percent per year with higher education participation rates in 2013, reaching 23 percent (Oey-Gardiner et al., 2017).

However, qualitatively, the quality of Indonesian universities are still far from expectation. One of the quality indicators is the presence of lecturers who show negative growth (Oey-Gardiner et al., 2017). In addition, it can be seen that in Indonesia, there are only two universities that are the world's best-rated version of Time Higher Education 2016, while India has 17 of the best universities (Indonesia and India are the same countries with the largest population). This phenomenon occurs because in general Indonesian higher education is still classified as

teaching, not a research university that prioritizes research (Oey-Gardiner et al., 2017).

In addition to the need to improve the quality of higher education, Indonesia also needs to expand the accessibility of higher education. This is driven by an increase in the number of millennials who are now in secondary school who have the potential to enter higher education. Based on central statistic agency data from 2008-2014, there was an increase in school enrolment rates for people aged 19-24 from 13 percent to 23 percent (BPS, 2015). However, now there are still many college-age children who cannot feel the lecture bench. For this reason, the government needs to improve the accessibility of universities.

Meanwhile, changes occur continuously and simultaneously. This also happens in universities. In fact, in developed countries, these changes occur very quickly, even towards disruptive conditions. This situation is driven by the development of Massive Open Online Courses (MOOCs) (Oey-Gardiner et al., 2017). This online teaching method is able to penetrate the boundaries of space and time so that it has a very wide range. MOOCs material and teaching materials can be accessed by anyone and anywhere even free. This is a very basic change in college. Previously, lectures affected the presence of lecturers and students on campus and paid tuition fees in accordance with the quality and educational facilities.

Thus, the MOOC system can strengthen the position of the "buyer" so that it changes the "market" of higher education from the "market provider" to "the buyer's market." If now the study program curriculum is designed by universities, in the future, it can be a "buyer" who will determine the courses he wants to attend the university. Thus, users/students can build a personal curriculum, which of course, will be very diverse.

Based on the description of the conditions and challenges mentioned above, it is necessary to conduct research to find out what strategic priorities need to be owned by state universities in the face of the era of disruption.

2 LITERATURE REVIEW

2.1 Strategic Priority

Strategic management can be defined as an art and science in formulating, implementing, and evaluating cross-functional decisions that enable organizations to achieve their goals (David & David, 2015). Based on this understanding, the strategic management process consists of 3 processes, namely formulation, implementation, and evaluation of strategies.

Strategic priority is a collection of ideas and strategies that are a top priority in the company. In each step of determining priorities, the strategic management group ranks the ideas produced at each stage of the process. Priorities can be arranged in an achievement index that combines rankings made by applying several criteria. Strategic priorities are significant for companies or institutions because they can affect the company's performance. Tarigan (2005) found that the company's strategic priority row had a positive effect on company performance. This result is also in line with the research of Verbeeten and Boons (2009), who found that strategic priorities had a positive effect on company performance.

2.2 Disruption Era

Disruption is a very basic change that occurs in various industries (Oey-Gardiner et al., 2017). The era of disruption is an era where there have been enormous changes in various industries, such as correspondence, print media, and public transportation. The main driving factor for disruption is the advancement of technology and information.

Disruption also hit the world of education with marked development of Massive Open Online Courses (MOOCs). This system is able to penetrate the boundaries of the lecture room, even the national borders, because anyone and anywhere can access lectures. This change resulted in a shift in the trend of higher education, which had been centered on universities as 'sellers' being user-centered as 'buyers'.

2.3 Concept Mapping

The research method used in this study is qualitative clustering through 'idea networking.' Idea networking is part of concept mapping (Metcalfe, 2007), which classifies, connects, and groups ideas. The source of the idea statement can be something that is relevant to the problem situation. This statement can be "interview transcripts, community meetings, memorized comments from a conversation or statement in company documents" (Metcalfe, 2007). In this method, statements of ideas are extracted and linked to each other to produce diagrams and produce a collection of statements that can be generalized to priority.

After finding these priorities, the researcher conducted a dialectical analysis. This is useful for exploring the tension or interrelationship between priorities as an illustration of creative strategies (Metcalfe, 2014). Basically, there are no best or most important priorities, but the opposite generation of concepts can encourage balance and creativity. The author analyzes the dialectics and the potential tension between priorities.

Concept mapping can be applied in various problems, especially excavation of ideas and networking ideas (idea networking). Some studies use this method in solving the problem, for example, the Borg (2010) study that found strategic priorities in the construction industry in Australia and research by Ridloah (2016) who found banking strategic priorities in Indonesia.

3 METHOD

This study examines universities in Indonesia. Qualitative data is used in this study, namely, data on the vision and mission of universities in Indonesia. The population of this study is all State Universities in Indonesia. Based on data from the Ministry of Research, Technology, and Higher Education, there are 135 state universities in Indonesia. In accordance with Law Number 20 of 2003 concerning the National Education System, this tertiary institution can take the form of a University, Institute, College, Polytechnic, or Academy. This study uses purposive sampling, which is a non-random sampling

technique. The advantage of using a purposive sampling technique is that it can target specific groups. In addition, this technique is easier to do and is suitable for specific target populations.

This study will target state universities in the form of universities as samples in this study. The researcher chose the form of university because the university has the authority to organize the most extensive education compared to the others. In addition, universities are generally well established compared to others. Based on data from the Ministry of Research, Technology, and Higher Education, there are 66 state universities that will be sampled in this study.

This type of research is exploratory research, namely research that aims to explore a variety of information, is explaining and exploring ideas (Solimun et al., 2017). The research method used in this study is qualitative clustering through 'idea networking.' Idea networking is part of concept mapping (Metcalfe, 2007), which classifies, connects, and groups ideas. The source of the idea statement can be something that is relevant to the problem situation. This statement can be "interview transcripts, community meetings, memorized comments from a conversation or statement in company documents" (Metcalfe, 2007). In this method, statements of ideas are extracted and linked to each other to produce diagrams and produce a collection of statements that can be generalized to priority.

To conceptualize the strategic priorities of State Universities in Indonesia, researchers link the institution's mission statement, which is available on the university's website. This network provides a qualitative means for grouping statements inductively (Hassanli & Metcalfe, 2013). The mission statement is chosen because it reveals the strategy action in question, supported by the university leadership and available to the public. An example of a mission statement is to 'organize and develop education in educational and non-educational programs that are superior to conservation and international reputations' (unnes.ac.id).

These statements are arranged and numbered. This statement is then linked to the use of keywords. The link is recorded in the interaction matrix using the social network analysis program Nodexl. There are many similar social network analysis programs, such as UCINET and Gephi, each with a very similar grouping algorithm. Nodexl is used in this study because it is relatively easy to operate and its support for Microsoft. Networking produces network diagrams and collections of statements. The cluster represents a group of similar mission statements. This cluster is named after what statement is contained in the mission. This act of synthesis requires evaluations by researchers based on their understanding of this industry. The name provides a classification of statements that is easy to use and can be interpreted as a summary of priorities.

4 RESULTS AND DISCUSSION

Based on the results of the analysis of the concept mapping, there are 10 clusters produced (see Figure 1. and Figure 2.).
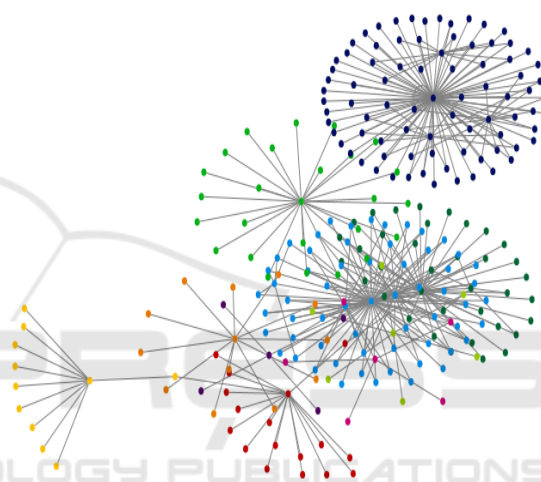

Figure 1: Network diagram of the organization's mission statement (the form of Harel-Koren).
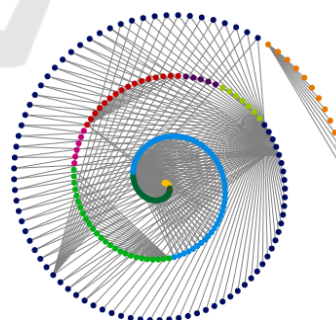Source: Results of data processing in NodeXL.

Figure 2: Network diagram of the organization's mission statement (spiral shape).
Source: Results of data processing in NodeXL.

The clusters in Figures 1 and 2 are named as follows:

Cluster 1-Tridharma of Higher Education

This cluster is a dark blue cluster. The collection of mission statements of this organization focuses on implementing the Tridharma of higher education. An example of this mission statement is "Organizing the Tridarma of Higher Education to support local, national, and international development based on local resources" (statement 39) (www.unsyiah.ac.id). The principle of tertiary education is one of the critical foundations of higher education, especially in the current era of disruption.

Cluster 2-GUG (Good University Governance)

This cluster is a light blue cluster. This collection of organizational mission statements underlines the implementation of good corporate governance in the organization. Examples of the statements are as follows: "Develop and run university activities that prioritize the principles of good university governance to be able to compete in global education" (statement 7) (www.unimal.ac.id). The principles of Good University Governance in Indonesia are transparency, accountability, responsibility, independence, fairness, quality assurance and relevance, effectiveness, and efficiency, as well as non-profit. GUG, in the disruption era, aims to create accountable colleges.

Cluster 3-Competitiveness

This cluster contains a statement that focuses on increasing the competitiveness and excellence of state universities (see the light green cluster). An example of the mission statement from this cluster is: "Organizing leading and sustainable education" (statement 10) (www.unsam.ac.id).

Cluster 4-Networking

Based on the result of clustering analysis, a collaboration network is also a strategic priority of state universities in Indonesia. This cluster is indicated by the dark green cluster. An example of the mission statement from this cluster is: "Strengthen and expand institutional collaboration networks in order to develop and preserve scientific, technological, humanities, sports and arts findings" (statement 4) (www.unsyiah.ac.id).

Cluster 5-Innovation

Innovation is important and a strategic priority for universities. Based on the results of idea networking analysis, a cluster of innovations is obtained (see red clusters). This cluster contains organizational mission statements related to the development of innovations, such as "Organizing innovative and highly competitive research to support the development of science and technology" (statement 19) (www.utu.ac.id).

Cluster 6-Accessibility

This cluster focuses on the importance of the availability of university access for the community (orange cluster). In the digital era, accessibility can be interpreted broadly. Accessibility is not only seen as physical access, but also online access (distance education). The statement in this cluster, is for example, "Providing access to world-class quality education for all levels of society through the implementation of various distance education programs to produce highly competitive graduates" (statement 76) (www.ut.ac.id).

Cluster 7-Local Wisdom

This yellow cluster focuses on the importance of maintaining local wisdom. An example of this collection of mission statements is: "Establishing academics who uphold the nobility of local culture and national culture in world cultural diversity" (statement 97) (www.unpad.ac.id). The wisdom of local culture can provide its own color for universities in Indonesia.

Cluster 8-Entrepreneurship

This light green cluster emphasizes the importance of developing an entrepreneurial spirit in the campus world. An example of his mission statement is: "Enabling university that is able to apply the principles of entrepreneurship in its continuous performance" (statement 88) (www.unj.ac.id).

Cluster 9-Multidisciplinary

This pink cluster focuses on the importance of developing various disciplines (multidisciplinary) so that universities do not only focus on one scientific discipline. An example of this collection of mission statements is: "Carrying out education by fostering and developing disciplines of education and education in disciplines, as well as proportional disciplines of religion, social sciences, formal sciences, and applied sciences to strengthen educational disciplines" (statement 98) (www.upi.edu).

Cluster 10-Up to date

This purple cluster emphasizes the importance of universities to always be up to date amid the development of information technology. Up to date here can also mean that universities must be able to

adjust to development needs. An example of this mission statement is: "Organizing a science, technology, information and cultural arts development program that is relevant to the development needs both regionally, nationally and internationally" (statement 18) (www.utu.ac.id).

5 CONCLUSIONS

Based on the results of the above analysis, it can be concluded that the strategic priorities of State Universities in Indonesia in the era of disruption have several important points, namely: tri dharma of higher education, competitiveness, Good University Governance, networking, innovation, accessibility, local wisdom, entrepreneurship, multidisciplinary and up to date.

This is expected to provide important information for state universities in facing challenges in the era of disruption. In addition, the results of this study can be a preliminary study to conduct further research on university strategic priorities.

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