Knowledge Management Organization to Gain Performance in Private University

Elizabeth Haloho¹*, Lailan Tawila¹, Idawati Purba¹ and Robbi Rahim²

¹Department of Management, Universitas Sari Mutiara Indonesia, Indonesia
²School of Computer and Communication Engineering, Universiti Malaysia Perlis, Malaysia

*elisabeth.haloho@gmail.com

Abstract. The purpose of this research to develop quality of education Private Universities in Medan. Competitive advantage of each Private university could be different one another but in this research will give insight on how using internal resource such as knowledge management will be benefitting the management. Higher education institution is aimed to become the center of development of education through research, teaching and outreach programs, technology development, art and social culture which will be expected to enhance the quality of life of people. There is increment number of students who finished Senior High School in Medan every year. With this reason, private universities are encourage to compete amongs them to attract new students to register. Therefore each of them must have a competitive advantage to become known by potential students and win the competition. The research is located in Medan, North Sumatera, with 100 respondents are Head of Study Programs from 11 universities in Medan. The research used Descriptive Statistic and Inferential in the data analysis. The analysis model is using Structural Equation Modelling (SEM) and calculated by AMOS. The result showed that Knowledge Management has significant relation with Competitive advantage and university performance.

1. Introduction

Universities are the centers of higher education whereas the maintenance, and development of science[1], technology[2] and/or arts in the hope of improving the quality of life in society, nation and country[3], [4]. Quality of education in Indonesia is still relatively lower if compared to other countries in Southeast Asia[5]. The position of Indonesian universities at International level can be seen from the list of the world's best universities issued by the Times Higher Education Supplement (THES) which is still out of top 100 best universities in the world.

From the rankings of Best universities in Indonesia there is still no university from North Sumatra included in the top 10 ranking of the best Universities in Indonesia. Two universities in North Sumatera which ranked in the top 100 are Universitas Sumatera Utara (USU) ranked 19th, UNIMED ranked 21th (www.kemenristekdikti.org). Some of the factors leading to the Bankruptcy of the universities are lack of interest in prospective students who want to register. As a result, the university is not able to finance education operations which rely on public funds. Other problems are faced by the majority of private universities in Indonesia, of which related to mismanagement of finance, lack of facilities and infrastructure, bad leadership, lack of human resources and bad image of the institution which leading to unhealthy organization and sometimes lawsuit on court by the founder[6].
Development and change occur in a geographical manner. This developments known as globalization[7]. Such conditions demanding each private universities to be able digging and developing sources of competitive advantage in order to survive and win competition. University Performance can be formed from competitive advantage. This is in accordance with research by Agha[7] that stated Competitive Advantage can improve Organizational Performance. In order for the company to remain competitive and gain competitive advantage, managers can try to improve organizational performance by managing each of the core competencies dimensions of shared vision; cooperation and empowerment[8], [9]

However, in managing competitive advantage, it must be done well in order to achieve superior performance. Competitive advantage will not boost high performance if 1) a company that has competitive advantage but failed to develop it into a compound advantage, 2) the company failed to take advantage of that potential, 3) if it has some competitive advantage but failed to make the right combination, 4) the company deliberately sacrificed the competitive advantage [10]. Another study by Diana, 2009[11] says that sustainable competitive advantage cannot always be decisive in competition because of the effects of rapid development such as technology and market changes forcing competitive advantage must also change. The unique advantages which were difficult to imitate cannot be sustained because of technological developments that eventually can be duplicated as well.

Competitive advantage is arguable as a topic discussed in strategic management[12]–[14]. Barney[15] further suggests that a company has the potential to produce a competitive advantage. But it must have four attributes: (a) having values; (b) rare; (c) cannot be imitated and (d) there is no substitute. The internal resources that can increase the competitive advantage is by implementing knowledge management[12], [16], [17]. Therefore, this research will see the effect knowledge management on competitive advantage and university Performance.

2. Methodology

The research method used in this study is descriptive survey research method and explanatory survey method. The type of investigation used is causality, which is the type of research that states a causal relationship. The unit of analysis of this study is the Private University that operates in Medan city, while the observation unit is the Head of Study Program at private universities in Medan city. The research model that will be used as an analytical tool in this study is Partial Least Square-Path Modeling (PLS-PM)

The population of this research is the Head of Study Program registered at the private University in Medan City. Based on data from Kopertis Sumatera Utara, currently the number of private universities which were active in Medan is as many are 23 universities, but not all of the existing private universities will be the object of research. From the data obtained, private universities included in the criteria are 11 private universities located in Medan. Then to choose head of Program Studies at selected private universities, this research is using incidental sampling with a proportional number of as many as 100 respondents.

3. Result and Discussion

Confirmatory Factor Analysis Result for exogenous constructs used to test the the dimensions that built up the latent variables. Table 1 presents P value of the model which results have significant loading with the Goodness of fit, so the model is acceptable. The significance level of 0.320 indicates that the null hypothesis has no differences between the sample covariance matrix and the estimated population covariance matrix. Therefore this exogenous construct is accepted, please see table 1 below:
Table 1. Confirmatory Factor Analysis

| Goodness of Fit Index | Cut-off Value | Result Analysis | Evaluation Model |
|-----------------------|---------------|-----------------|------------------|
| χ² – Chi-square       | expected to be small ≤ 87.437 | 87.437 | Good |
| Probability           | ≥ 0.05        | 0.320           | Good             |
| RMSEA                 | ≤ 0.08        | 0.026           | Good             |
| GFI                   | ≥ 0.90        | 0.899           | Marginal         |
| AGFI                  | ≥ 0.90        | 0.852           | Marginal         |
| TLI                   | ≥ 0.95        | 0.989           | Good             |
| CFI                   | ≥ 0.95        | 0.991           | Good             |

After a confirmatory analysis and a fit model are obtained, each variable can be used to define a latent construct so the full SEM analysis can be done. The result for the structural model is presented on Figure 1 below.

Figure 1. Structural Equation Model

The result of coefficient correlation on regression presented at Table 2 has the best fit correlation.

Table 2. Regression Weight SEM

|                      | Estimate | S.E. | C.R. | P    | Label |
|----------------------|----------|------|------|------|-------|
| Competitive ← knowledge | .465     | .126 | 3.704| ***  | par_1 |
| Performance ← Competitive | .922     | .392 | 2.351| .019 | par_9 |
| Performance ← knowledge | .848     | .384 | 2.208| .027 | par_20|
| M1 ← knowledge       | 1.000    |      |      |      |       |
| KA1 ← Competitive    | 1.000    |      |      |      |       |
| P1 ← Performance     | 1.000    |      |      |      |       |
| M2 ← knowledge       | 1.069    | .170 | 6.274| ***  | par_2 |
| M3 ← knowledge       | 1.036    | .172 | 6.026| ***  | par_3 |
| M4 ← knowledge       | 1.164    | .185 | 6.301| ***  | par_4 |
| M6 ← knowledge       | .676     | .176 | 3.830| ***  | par_5 |
Table 2 indicates that not all variables analyzed have correlation and effect to other variables because they are at the significant level expected since CR is more than 2.00 and value of probability is more than 0.05

**Hypothesis Experiment I**

H₀ = Knowledge management has no positive significant effect on competitive advantage
H₁ = Knowledge management has a positive and significant effect on competitive advantage

As shown at Table 2 that P<0.05 and CR >2 thus H₀ rejected and H₁ is accepted. So the result of this research is knowledge management has significant level on competitive advantage.

**Hypothesis Experiment II**

H₀ = Competitive advantage has no positive and significant effect on organization performance
H₂ = Competitive advantage has positive and significant effect on organization performance

As shown at Table 2 that P<0.05 and CR <2 thus H₀ rejected and H₂ is accepted. So the result of this research competitive advantage has no significant level on performance.

**Hypothesis Experiment III**

H₀ = Knowledge has no positive and no significant effect on organization performance
H₃ = Knowledge has positive and significant effect on organization performance

Based on Table 2 it can concluded that H₀ is rejected and H₃ is accepted because P value is less than 0.05 and CR is more than 2. So the result of this research is knowledge management has significant effect on organization performance.

Knowledge management is a process of human activity related to knowledge, but does not deal with the special nature of different types of knowledge, or the relative importance to different knowledge within an organization. Knowledge must be balanced within an organization because it is very important. The University's strategic resources can also be a competitive advantage. The strategic resource could be the knowledge management. In achieving competitive advantage, knowledge management is important in assisting organizations in developing their innovative product. It is recommended that knowledge management used as an essential Business tool to gain competitive advantage and in turn encourage economic growth.

We are not only in the new millennium, but also in a new era: the era of knowledge. Sustainable competitive advantage depends on building and utilizing core competencies. The company's resource-based view (RBV) defines strategic assets as rare, valuable, inimitable and non-replaceable assets. Knowledge is a potential strategic asset to be a source of competitive advantage for an organization. Knowledge management can be used to create a competitive advantage an achieve organization performance.
4. Conclusion
Knowledge management has a positive and significant effect on competitive advantage, and also has a significant influence on organizational performance, so in this study can be concluded that exogenous variables that have significant influence only knowledge management, if the higher education want to achieve competitive advantage, they should be improve their knowledge management in order to compete with other universities.

References
[1] J. Suyono, A. Sukoco, M. I. Setiawan, Suhermin, and R. Rahim, “Impact of GDP Information Technology in Developing of Regional Central Business (Case 50 Airports IT City Development in Indonesia),” *J. Phys. Conf. Ser.*, vol. 930, no. 1, p. 12045, Dec. 2017.
[2] R. Rahim, “Man-in-the-middle-attack prevention using interlock protocol method,” *ARPN J. Eng. Appl. Sci.*, vol. 12, no. 22, pp. 6483–6487, 2017.
[3] R. Rahim, Mesran, A. Putera, U. Siahaan, and S. Aryza, “Composite performance index for student admission,” *Int. J. Res. Sci. Eng.*, vol. 3, no. 3, pp. 68–74, 2017.
[4] Mesran, G. Ginting, Suginam, R. Rahim, M. Aan, and R. Rahim, “Implementation of Elimination and Choice Expressing Reality ( ELECTRE ) Method in Selecting the Best ... Implementation of Elimination and Choice Expressing Reality ( ELECTRE ) Method in Selecting the Best Lecturer ( Case Study STMIK BUDI DARMA ),” *Int. J. Eng. Res. Technol.*, vol. 6, no. 2, NaN-2017, pp. 141–144, 2017.
[5] P. harliana and R. Rahim, “Comparative Analysis of Membership Function on Mamdani Fuzzy Inference System for Decision Making,” *J. Phys. Conf. Ser.*, vol. 930, no. 1, p. 12029, Dec. 2017.
[6] S. Khotimah, “PERUMUSAN STRATEGI BAGI PERGURUAN TINGGI SWASTA (PTS) UNTUK MERAIH KEUNGGULAN BERSAING (STUDI KASUS PADA UNIVERSITAS MERDEKA MALANG) Siti Khotimah,” *SPREAD*, vol. 2, no. April, pp. 73–84, 2012.
[7] S. Agha, L. Alrubaiiee, and M. Jamhour, “Effect of Core Competence on Competitive Advantage and Organizational Performance,” *Int. J. Bus. Manag.*, vol. 7, no. 1, p. 192, Dec. 2011.
[8] A. Ismadi Ismail, R. C. Rose, H. Abdullah, and J. Uli, “THE RELATIONSHIP BETWEEN ORGANISATIONAL COMPETITIVE ADVANTAGE AND PERFORMANCE MODERATED BY THE AGE AND SIZE OF FIRMS,” *Asian Acad. Manag. J.*, vol. 15, no. 2, pp. 157–173, 2010.
[9] D. Siregar, D. Arisandi, A. Usman, D. Irwan, and R. Rahim, “Research of Simple Multi-Attribute Rating Technique for Decision Support,” *J. Phys. Conf. Ser.*, vol. 930, no. 1, p. 12015, Dec. 2017.
[10] A. Balkytė and M. Tvaronavičienė, “PERCEPTION OF COMPETITIVENESS IN THE CONTEXT OF SUSTAINABLE DEVELOPMENT: FACETS OF &quot; SUSTAINABLE COMPETITIVENESS &quot;”
[11] D. Bratić, “Knowledge And Knowledge Management As A Competitive Advantage Author,” *Knowl. Knowl. Manag. acta Graph.*, vol. 20, pp. 1–4, 2009.
[12] M. E. Porter, “TECHNOLOGY AND COMPETITIVE ADVANTAGE,” *J. Bus. Strategy*, vol. 5, no. 3, pp. 60–78, Jan. 1985.
[13] S. E. South, “COMPETITIVE ADVANTAGE: THE CORNERSTONE OF STRATEGIC THINKING,” *J. Bus. Strategy*, vol. 1, no. 4, pp. 15–25, Jan. 1981.
[14] L. Soloducho-Pelc, “Competitive Advantage: The Courage in Formulating Objectives and Expansiveness of a Strategy,” *Procedia - Soc. Behav. Sci.*, vol. 150, pp. 271–280, Sep. 2014.
[15] J. Barney, “Firm Resources and Sustained Competitive Advantage,” *J. Manage.*, vol. 17, no. 1, pp. 99–120, Mar. 1991.
[16] O. R. Mahdi, M. K. Almsafir, and L. Yao, “The role of knowledge and knowledge management in sustaining competitive advantage within organizations: A review,” *African J. Bus. Manag.*, vol. 5, no. 23, pp. 9912–9931, 2011.

[17] D. Kaveh, E. M. Bamipour, M. S. Far, and M. S. Far, “The Relationship between Knowledge Management and Competitive Advantage: A Case Study in Small and Medium-Sized Companies in the Packaging Industry of Khorasan Razavi,” *Eur. Online J. Nat. Soc. Sci. Spec. Issue New Dimens. Econ.*, vol. 4, no. 1, 2015.