

Competitive Advantage and Organizational Effectiveness at Public Universities of Educational Institution of Education Personnel

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Abstract—This study analyzes the competitive advantage and organizational effectiveness at public universities that operate the Educational Institution of Education Personnel (EIEP) in Indonesia. The role of those public universities in this century needs to emphasize competitive advantage to compete with other universities and to achieve high organizational effectiveness. From the perspective of educational administration, competitive advantage affects organizational effectiveness. This study analyzes the effect of competitive advantage on organizational effectiveness. Using the survey and quantitative approach, the research was conducted at 12 public universities in Indonesia with population of 11,262 lecturers and the sample of 108 lecturers. The data were analyzed by descriptive, SEM-PLS, and quadrant analyses. The results in general reveal that competitive advantage and organizational effectiveness at 12 public universities are moderately high, but have not optimal yet. There are still several dimensions that need to be enhanced. Hypothesis testing shows that competitive advantage has a positive and significant impact on organizational effectiveness. The SARI Quadrant Analysis Model of all variables maps the positions of each dimension in each quadrant related to the focus of the action or strategy being performed: sustained, adjusted, repaired, and improved.

Keywords—*competitive advantage; organizational effectiveness; educational institution of education personnel*

I. INTRODUCTION

Development in various sectors of human life, such as politics, economics, social, religion, and culture is inseparable from the development of science and technology and human civilization. The existence of educational institutions, from basic education to higher education, has a very important role as the spearhead of change and transformation towards better development in a country [1], whether in developing countries and developed countries. Education, especially higher education, is a means to empower people and the development of a nation.

Higher education has a mission and a very important function by contributing to sustainable development and community development as a whole [2]. The ability of a country to adopt, disseminate, and optimize science and

technology depends on the higher education system [3]. In the life of a nation and state, the higher education institution is a symbol of the country's development progress [4]. In the world, higher education is expected to change as the environment develops. In developing countries, the value of higher education is associated with the value of contributions to national development [5]. The higher education institutions have a great moral responsibility in raising the awareness, knowledge, skills, and values necessary to create a fair and sustainable future [6]. The success of higher education institutions in Indonesia can be seen from the effectiveness of the achievement of goals that refers to the National Standards of Higher Education. These standards guarantee the achievement of higher education objectives that play a strategic role in achieving quality in accordance with or even beyond the criteria, especially on the quality aspects of learning, research, and community service.

Any institution or organization, including higher education institution, always strives to be more effective and achieve superior results. Higher education is needed to improve the nation's competitiveness to face the globalization in all fields. Public and private universities, as educational institutions that provide higher education, continue to improve their competitiveness in achieving organizational effectiveness. The manifestation of a competitive nation is inseparable from the output of human resources from universities. However, Indonesia's current human resource quality, based on the education level of the workforce, is still dominated by elementary school graduates [7], showing that the role of universities is still needed to balance the quality of Indonesian human resources. The percentage of university graduates is the largest contributor to the unemployment rate in Indonesia [7], indicating that universities are not a solution to reducing unemployment. The profession taken by most university graduates (79.41%) is to be a worker or an employee, and only 6.59% of graduates become entrepreneurs [7], proving that university graduates are still job seekers, not yet job creators. These phenomena lead to the important role of universities in nation building. Therefore, the position of university competitive advantage needs to be improved, so that the implementation of education and achievement of university

goals can run effectively. Indonesia's competitiveness position on the pillars of higher education from 2014 to 2017 is decreasing, indicating a decline in Indonesia's higher education competitiveness [8].

A similar phenomenon occurs in the Educational Institution of Education Personnel (EIEP) throughout Indonesia, as universities assigned by the Government to organize teacher procurement programs in early childhood education of formal education, primary education and/or secondary education, and to organize and develop the science of education and non-education. The competitive advantage position of EIEP universities in 2017 is no better than other universities. Of the 12 public EIEP universities in Indonesia, only four are included in the top 20. To compete with other universities, the public EIEP universities in Indonesia need to do positioning in terms of competitive advantage that has certain characteristics that cannot be imitated by other universities, to distinguish them with other universities, by highlighting the advantages of cost leadership, differentiation, responding to opportunities, and distinctive competitive [9-11]. High competitive advantage in an organization leads to high performance and organizational effectiveness [12]. The competitive advantage of an organization must go hand in hand with increasing organizational effectiveness [13]. Every external opportunity is a source to enhance the company's competitive advantage in achieving organizational effectiveness [14].

The implementation of the process and the achievement of the objectives of organizational effectiveness at public universities in Indonesia reflects the universities' ability to survive, develop, adapt to the environment, and to carry out the missions and functions, achieve goals in accordance with the established targets, effectively and efficiently in meeting stakeholder satisfaction. The organizational effectiveness that is expected to emerge from the university is effective in achieving objectives, efficient in obtaining and using scarce resources, becoming a source of satisfaction of internal and external stakeholders, adaptive to change, able to develop, and able to survive [15-20].

Thus, the purpose of this study is to: (1) describe the competitive advantage and organizational effectiveness at 12 public EIEP universities in Indonesia; (2) analyze the effect of competitive advantage on organizational effectiveness at 12 public EIEP universities in Indonesia; and (3) analyze the quadrant model of competitive advantage and organizational effectiveness at 12 public EIEP universities in Indonesia.

II. LITERATURE REVIEW

A. Organizational Effectiveness

Effectiveness in an organization, including in educational institutions, is related to the success of an organization in achieving its specified goals appropriately. An organization is said to be effective if it succeeds in reaching a properly defined goal, and is said to be ineffective if otherwise. A unit that is not effective in working with other work units can lead to failure within the organization. Concepts or constructs of organizational effectiveness began to be developed in the 1950s, which is used as a goal achievement or how successful

an organization can realize its purpose [17]. To date, almost all organizations use performance measurements to assess and measure organizational effectiveness. The concept of effectiveness has been eliminated in the interest of the concept of 'performance'. Various efforts have been made to outline and measure models of organizational effectiveness, ranging from goal model, system, efficiency, human resources, to competitive values [18]. The concepts and terms of organizational effectiveness can be exchanged with terms such as organizational success, organizational worth, ability, accountability, efficiency, improvement, performance, productivity, adaptability, and outcome [20]. Thus, the construct of organizational effectiveness in this research is organizational ability to survive, develop, adapt to its environment, and can carry out its mission and function, achieve the intended purpose, effectively and efficiently in fulfilling stakeholder satisfaction.

Methods for measuring organizational effectiveness vary widely. Since organizational effectiveness is a latent construct, it cannot be measured directly. The dimensions of the criteria for organizational effectiveness in this research are that the organization must be (1) effective in achieving its objectives, (2) efficient in obtaining and using scarce resources, (3) a source of satisfaction for internal and external stakeholders, (4) adaptive in facing opportunities and challenges, (5) able to develop the capabilities of members and organization, and (6) able to survive in uncertainty.

B. Competitive Advantage

An organization is considered to have a competitive advantage when it consistently outperforms other organizations in the same industry. Competitive advantage is considered stronger if it can last for a relatively long period of time. The organization's ability to maintain long-term competitive advantage indicates that the organization has gained a sustainable competitive advantage. Competitive advantage is used for all types of organizations, as well as in services including education services [21]. This indicates the importance of competitive advantage to maintain competition in education. The competitive advantage has two source perspectives, i.e. industrial organization and resource-based [22]. Competitive advantage means the company's strategy advantage over different products and is difficult to imitate, and results in better financial returns [23]. Thus, the construct of competitive advantage in this research is the advantage in the strategy of creating products and services in a field that competitors cannot continually imitate, differentiating themselves from their competitors, within a particular market or industry.

Competitive advantage can be measured through multiple perspectives, as each organization has different measurements. Competitive advantage is closely related to the implementation of generic strategies, in this case the implementation of cost strategy, differentiation and focus [24]. Cost, quality, and innovation strategies can be used to measure the competitive advantage [25]. Meanwhile, competitive advantage needs to be supported by responding to opportunities [26] and the organization's distinctive competencies [27]. Thus, the dimensions of competitive advantage in this research are: (1)

cost leadership, (2) differentiation, (3) respond to opportunities, and (4) distinctive competencies.

III. RESEARCH METHOD

This study is a quantitative approach by utilizing questionnaires as the main instrument of data collection. The data were analyzed by deceptive analysis to describe various characteristics of the variables studied. The verification analysis for hypothesis testing of this research was Structural Equation Modeling Partial Least Square (SEM-PLS). To enrich the study, the analysis of SARI (Sustained, Adjusted, Repaired, and Improved) quadrant model as a synthesis or combination of descriptive and verification analyses was also conducted.

This research was conducted in 12 public EIEP universities in Indonesia, i.e. Universitas Negeri Medan (UNIMED), Universitas Negeri Padang (UNP), Universitas Negeri Jakarta (UNJ), Universitas Pendidikan Indonesia (UPI), Universitas Negeri Semarang (UNNES), Universitas Negeri Yogyakarta (UNY), Universitas Negeri Surabaya (UNESA), Universitas Negeri Malang (UM), Universitas Negeri Makassar (UNM), Universitas Negeri Manado (UNIMA), Universitas Negeri Gorontalo (UNG), dan Universitas Pendidikan Ganesha (UNDIKSHA). The population in this research is all lecturers at 12 universities, as academicians who play important roles in organizing core business of the university. The minimum sample needed is 67, which is spread proportionally across the universities. The questionnaire was distributed to the lecturers via Google Form, and there were 133 responses. Nevertheless, only 108 responses can be further processed, due to the data completeness and proportional distribution of the sample.

In the model, competitive advantage (X) is the latent exogenous variable that has four manifest variables, i.e. cost leadership (X₁), differentiation (X₂), respond to opportunities (X₃), and distinctive competencies (X₄). Meanwhile, organizational effectiveness (Y) is the latent endogenous variable that has six manifest variables, i.e. effective (Y₁), efficient (Y₂), satisfaction (Y₃), adaptive (Y₄), developing (Y₅), and survival (Y₆).

IV. RESULTS

The descriptive analysis describes the average performance of each manifest variable, showing that all manifest variables are categorized as moderately high (range = 3.000 – 4.000 from lowest = 1.000 and highest = 5.000). In competitive advantage, cost leadership (X₁) and differentiation (X₂) are relatively lower than respond to opportunities (X₃) and distinctive competencies (X₄). In organizational effectiveness, efficient (Y₂) and satisfaction (Y₃) are relatively lower than other manifest variables.

The hypothesis testing using SEM-PLS consists of two steps. The first step is evaluation of outer model or measurement model, which includes the value of outer loading (valid when outer loading > 0.5 and ideally outer loading > 0.7). The second step is the evaluation of inner model (structural model), which includes the value of latent variable correlations, path coefficients, and R-square (R²), in terms of the variance of endogenous constructs explained by exogenous constructs.

These outer loadings represent the absolute contribution of each manifest variable (dimension or indicator) in reflecting its latent variables. The results show that all manifest variables have a path loading/coefficient > 0.50 that indicates that each manifest variable is significantly capable of reflecting latent variables of competitive advantage and organizational effectiveness at 12 public EIEP universities in Indonesia. Structural equations in this model is formulated as follows:

$$Y = 0.821 X, \text{ with } R^2 = 0.674 \text{ and } \varepsilon = 0.326 \quad (1)$$

R-square value of 0.674 indicates a significant influence of competitive advantage on organizational effectiveness, meaning that 67.4% variance of organizational effectiveness can be explained by competitive advantage, and 32.6% is influenced by other factors not examined in this model. The value also indicates the importance of competitive advantage to improve the organizational effectiveness at 12 public EIEP universities in Indonesia.

SARI Quadrant Model Analysis can be used as a synthesis of descriptive analysis and verification analysis (SEM-PLS), to map each dimension of each variable, so that one action or strategy can be taken to be sustained, adjusted, repaired, and improved. The strategy mapping of SARI Quadrant Model is presented in table I.

TABLE I. STRATEGY MAPPING OF SARI QUADRANT MODEL

Manifest Variables	Ave. Perf.	Outer Loadings	Cat.	Quad.	Action/Strategy
X ₁	3.287	0.736	L-L	Q3	Repaired
X ₂	3.435	0.860	L-H	Q4	Improved
X ₃	3.478	0.824	H-H	Q1	Sustained
X ₄	3.602	0.828	H-H	Q1	Sustained
X	3.451	0.812			
Y ₁	3.565	0.804	H-L	Q2	<i>Adjusted</i>
Y ₂	3.386	0.784	L-L	Q3	<i>Repaired</i>
Y ₃	3.431	0.858	L-H	Q4	<i>Improved</i>
Y ₄	3.528	0.854	H-H	Q1	<i>Sustained</i>
Y ₅	3.506	0.899	H-H	Q1	<i>Sustained</i>
Y ₆	3.560	0.805	H-L	Q2	<i>Adjusted</i>
Y	3.495	0.834			

Ave. Perf. = Average Performance; Cat. = Category; Quad. = Quadrant; H = Higher; L = Lower

In details, the SARI quadrant model of competitive advantage and organizational effectiveness is presented in figure 1 and figure 2 consecutively.

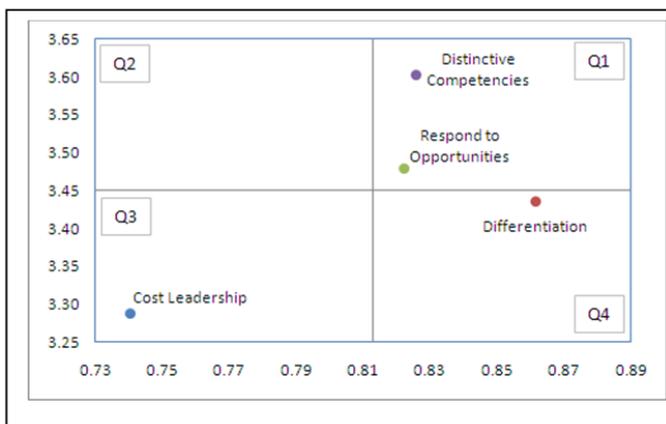


Fig. 1. Quadrant model of competitive advantage.

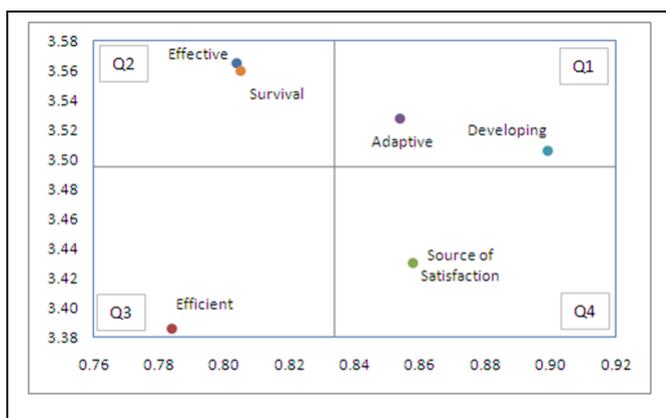


Fig. 2. Quadrant model of organizational effectiveness.

In this SARI quadrant model, there are four dimensions that have to be sustained (distinctive competencies and respond to opportunities in competitive advantage; and adaptive and developing in organizational effectiveness); two to be adjusted (effective and survival in organizational effectiveness), two to be repaired (cost leadership in competitive advantage and efficient in organizational effectiveness); and two to be improved (differentiation in competitive advantage and source of satisfaction in organizational effectiveness). The appropriate synergies of each dimension in each quadrant can be the best model of competitive advantage and organizational effectiveness at public EIEP universities in Indonesia.

V. DISCUSSION

The descriptive analysis, hypothesis testing, and SARI quadrant analysis reveal the position of competitive advantage and the achievement of organizational effectiveness at the public EIEP universities in Indonesia. The universities should be able to cope with each aspect of competitive advantage to improve each aspect of organizational effectiveness. The findings of this study support the statement that organizational development includes all aspects that need to be developed, including aspects of change management, value creation, organizational culture, and competitive advantage [28]. The

competitive advantage built by value creation can affect the effectiveness and performance of the organization [12].

The contribution of competitive advantage to organizational effectiveness is immense and needs to be sustained that way. Dimensions of respond to opportunities and of distinctive competencies are in line with the dimensions of adaptive and of developing in the organizational effectiveness. Nevertheless, there is still a dimension that needs to be improved: Cost leadership in competitive advantage and efficient in organizational effectiveness, so that the two dimensions can be synergized, and in turn, the contribution of competitive advantage can be greater to organizational effectiveness at public EIEP universities in Indonesia. Differentiation in competitive advantage should be strived to go hand in hand with the satisfaction in organizational effectiveness. Here, differentiation can be an important source of satisfaction, especially in increasing the satisfaction of external stakeholders. Increasing synergy between these dimensions is expected to add to the contribution of competitive advantage to organizational effectiveness.

Distinctive competencies (uniqueness of teaching staffs, information technology, and learning facilities) may become one of the major components of the university to sustain a competitive advantage compared to other universities. Respond to opportunities (response to stakeholders' needs, partnerships, and cooperation) can be the main priority to be sustained to face the competition with other universities. Differentiation of graduate output, service, and learning facilities can be the main priorities to be improved to gain the specific competitive advantage. Cost leadership (competitive costs, operational cost efficiency, and learning facilities efficiency) must be repaired due to the low performance that can hamper educational process at the university.

The aspect of developing (institutions, leadership, teaching staffs, administrative staffs, and students) should be sustained as one of the main characteristics of organizational effectiveness at public EIEP universities in Indonesia. The universities have to sustain the adaptability to respond to opportunities and confront the challenges. The satisfaction of internal and external stakeholders can be the university's top priority to be improved because there are still internal stakeholders (teaching staffs, administration staffs, and students) who are not fully satisfied with the current state of the universities. The ability of survival must be adjusted because the direction of the independence and sustainability of the university is still unclear. The effectiveness of the learning process, research, and community service can also be the university's top priority to be adjusted because the achievement is high, but the contribution has not been so high to the organizational effectiveness. Efficiency of financial management, academic services, and utilization of learning facilities must be repaired because if it continues to be ignored, it will affect the overall organization effectiveness at public EIEP universities in Indonesia. If all conditions are met, then the universities will easily gain competitive advantage in achieving the university effectiveness.

VI. CONCLUSION

Hypothesis testing shows that competitive advantage has a positive and significant impact on organizational effectiveness. The SARI Quadrant Analysis Model of all variables maps the positions of each dimension in each quadrant related to the focus of the action or strategy being performed: sustained, adjusted, repaired, and improved.

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