Effect of Organizational Learning and Innovation On Competitive Advantage Of Higher Education In Padang

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Abstract

This study aims to analyze: (1) the influence of organizational learning on competitive advantage is mediated by the innovation of universities in Padang City. This type of research is a descriptive causative approach. This research was carried out in a study program at a university in Padang City. The populations in this study were all study programs throughout universities, both state universities and private universities in the city of Padang. The sample used is 100 study programs at university colleges with Probability Sampling technique with the sampling method using Stratified Proportionate Random Sampling type of the data in this study are primary and secondary data. Data were collected through questionnaires and Analyzed using the SmartPLS version 3.0 programs.

Keywords: organizational learning, innovation, competitive advantage

Introduction

Competition in the era of globalization today requires not only manufacturing organization but also a service organization to be able to constantly improve its competitive advantage in order to survive in the competition that is growing very rapidly. Changing environment and rapid technological advances that make competition in the industry and higher education so that each company and organization trying to have a competitive advantage to survive in a changing environment and such competition (Firman, 2016). To cope with the rapid changes in the business environment, an organization it should have a strategy to survive and not to lag behind its competitors. This strategy created a strategy to survive in the changing environment and strategy of the organization should be able to create competitive advantage (Kusuma, 2005).

The education sector should also have a competitive strategy to survive in the competition in the field of education. Universities and colleges in addition to being one of the educational institutions that perform human resource development in improving the skills and abilities, as well as an institution that provides public services, like public service companies in general. Courses in all universities are required to improve their quality so as to create a competitive advantage to the program of study that is better than the other courses.

In creating a competitive advantage to organizations engaged in services such as universities there are several things that must be considered by colleges especially by the study program. David (2006) describe a competitive advantage as a situation where when an organization can do something and other organizations cannot do it, or have a desirable competitor.

In order to achieve and maintain a competitive advantage in a business environment that is changing rapidly, organizations must be able to increase the capacity of learning (Marquardt, 1996), The ability to innovate is essential in order to create a competitive advantage (Larsen, 2007). Innovation can improve its ability to compete (Parkman, 2012),

Indonesia almost occupies the lowest position on the quality of education in developing countries in Asia-Pacific. Indonesia ranked 10 out of 14 developing countries that have a low educational quality. Due to the low quality of education in Indonesia, the Indonesian government is trying to fix it with some action in terms of education.

One development of the education program of the government is to build universities, both public universities and private colleges continuously spread in 34 provinces throughout Indonesia. According to data from Forlap Higher Education in 2016, the number of universities in Indonesia

amounted to 4,633 college. West Sumatra is a province that has the most universities in Indonesia. Based on data forlap Higher Education in 2016, west Sumatra are in the top ten provinces that have the most number of universities in Indonesia with 159 universities.

Padang is the capital of West Sumatra province, so most education centered in the city of Padang. Since the 2000s a growing number of colleges in the city of Padang is growing. The whole college continues to change towards the better to be able to make progress in education, especially higher education that college in Padang City can improve its performance so that it can compete with other universities nationally.

In the continuous changes in the college always improve its quality so that universities can have a competitive advantage. Of the many factors that can support and influence the competitive advantage, organizational learning is one of the factors that influence the competitive advantage of an organization.The ability to innovate is essential in order to create a competitive advantage (Larsen, 2007). Inovation which incorporates significant improvements to processes and management methods, we highlight that innovation has drawn closer to environmental sustainability to provide a change in the impact of economic activity, both in reducing residues generation.

Competitive Advantage

Enduring competitive advantage is the organization's ability to learn faster than its competitors according to Peter Senge (2000). David (2006) describe a competitive advantage as a situation where when a company can do something and the other companies cannot do it, or have a desirable competitors. Competitive advantage can be measured with the differentiation, cost advantage, and outreach level.

Organizational Learning

Organizational learning is defined as an organization that has the ability to constantly improve its performance on an ongoing basis, as members - its members are committed and competent individual who is able to learn and share knowledge on a superficial level and substantial for the organization. Indicators measuring organizational learning is the acquisition of technology, the development process of new, learn something new, managerial and organizational, knowledge and skills, increased knowledge for efficiency, and ability to find solutions.

Innovation

Innovation is an idea or goods / new thing yet or already exist but have not been known to the adopters. Innovation is the ability to apply creativity to solve problems and opportunities to improve the welfare of the lives of both individuals and the organization (Dela, 2015). The goal of innovation is to create business value by developing ideas into reality valuable (Ali, 2013). Innovation can be measured through product innovation, process innovation and management innovation.

Research Hypotheses
Organizational Learning and Innovation

Stata Hurley and Hult (1998) stated that the participation of decision variables and organizational learning related to innovation, but the strength of the relationship of organizational learning dangan greater innovation than the decision variables. This is consistent with research Stata (1989) where the learning organization is Kanci of innovation. Meanwhile Stata (1992) argues that the learning process of the company (organizational learning) is a way to develop the innovation process within the company.

Hypothesis 1 : Organizational Learning significant positive effect on innovation

Organizational Learning and Competitive Advantage

Marquardt (1996: 15) states in order to achieve and maintain a competitive advantage in a business environment that is changing rapidly, organizations must be able to improve the learning capacity.

Organizational learning process is a process in which an organization uses existing knowledge and build new knowledge to shape new competency development is very important in an environment that is constantly changing. Wang and Lo (2003) found empirically that organization learning also have a positive effect on competitiveness competence.

hypothesis 2 : Organizational Learning significant positive effect on Competitive Advantage

Innovation and Competitive Advantage

The ability to innovate is essential in order to create a competitive advantage (Larsen, 2007). Innovation can improve its ability to compete (Parkman, 2012). To achieve competitive advantage, then it should always be the focus of innovation to create something new in the world (Thomas D. Kuczmarki, 2003).Innovation is one of the most important sources of competitive advantage (gunday et al, 2011).

hypothesis 3 : Innovation significant positive effect on Competitive Advantage

Organizational Learning and Competitive Advantage mediated by Innovation

Marquardt (1996: 15) states in order to achieve and maintain a competitive advantage in a business environment that is changing rapidly, organizations must be able to improve the learning capacity. So, an organization that has been doing the learning organization will continue to innovate and will gain competitive advantage.

hypothesis 4 : Organizational Learning significant positive effect on Competitive Advantage mediated by Innovation

Methods

This research uses descriptive causative approach which is a type of survey research.Pada study authors took the research object that throughout the study program College in Padang. College researchers only take the form of universities a total of 11 universities in the city of Padang. The study was conducted in May and July 2018.

The population in this research is the courses that exist across colleges in the city of Padang. The sampling technique used is Probability Sampling with sampling method using Sratified Proportionate Random Sampling using a formula that is 100 respondents slovin. Data used in this study is the quantitative data that is data in the form of numbers, include the results of statistical data management. The data source consists of two sources is secondary data and primary data. Primary data obtained from the field is by distributing questionnaires to study university courses in Padang. While secondary data obtained from forlab Higher Education.

Results and Discussion

Data Description of Respondents

In the research that has been done on 100 respondent's researcher who is a course of study at University College in Padang then it can be classified characteristics of the respondents as follows:

On the table shows that the characteristics of the respondents divided four items, namely the age of the study program, the number of teachers, number of students, and accreditation.

Table 1 Characteristics of Respondents Research

	Age Program	Total	Percentage
1.	<5 years	12	12%
2.	10-15 years	17	17%
3.	15-20 years	19	19%
4.	> 20 years	52	52%
	Number of Lecturers	**Total**	**Percentage**
1.	<10	19	19%
2.	10-15 people	22	22%
3.	15-20 people	19	19%
4.	> 20 people	40	40%
	Number of Students	**Total**	**Percentage**
1.	<100	13	13%
2.	100-300 people	22	22%
3.	300-500 people	23	23%
4.	> 500	42	42%
	Accreditation	**Total**	**Percentage**
1.	A	59	59%
2.	B	31	31%
3.	C	10	10%

Source: Primary Data 2018 (Data Processed)

PLS Output Analysis

Test convergent validity reflexive indicators can be seen from the loading factor for each indicator constructs. To study the early stages of development scale of measurement, the value of the loading factor between 0.5 to 0.6 is considered sufficient (Chin in Ghozali 2009). Picture path diagram of causality between the construct and the loading factor values for each indicator can be seen as follows

Source: Primary Data 2018 (Data Processed)
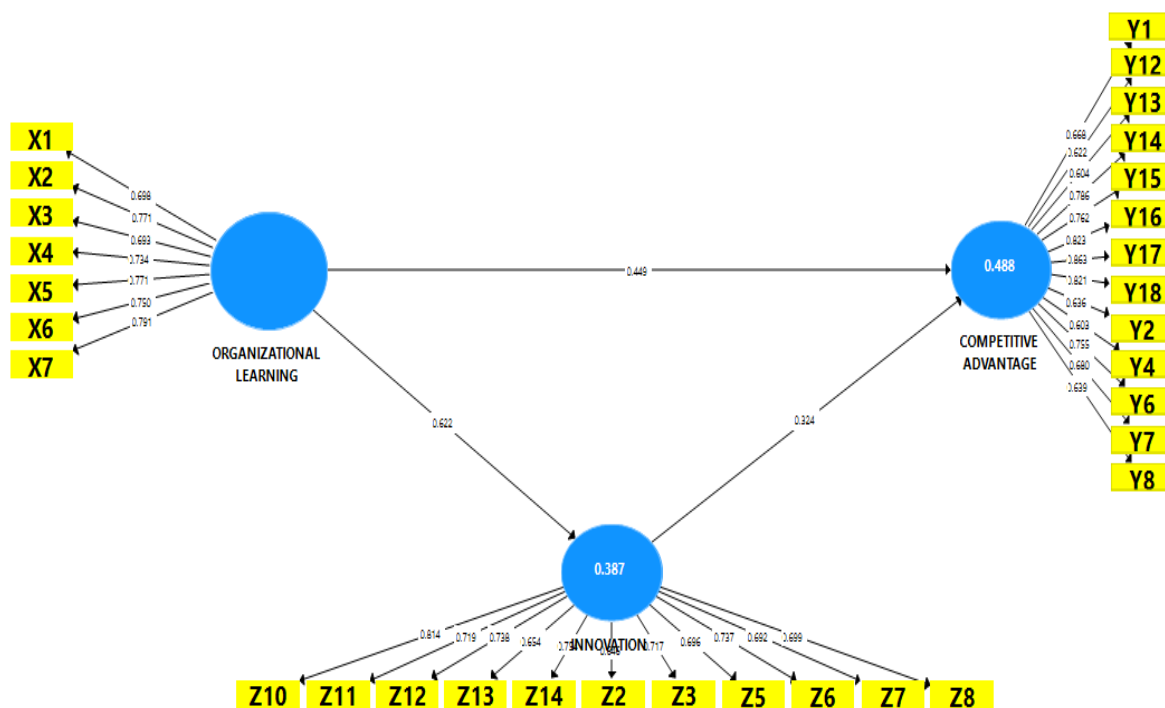
Figure 1 Re-estimation model 4

Value AVE and outer loading and final structural model results can be seen in the following table.

Table 2 Average Variance Extracted (AVE) End

Variables	AVE
Competitive Advantage (Y)	0515
Innovation (Z)	0513
Learning Organizations (X)	0555

Source: Primary Data 2018 (Data Processed)

The result of the final structural model shows the value AVE all the variables have met the required rule of thumb (AVE > 0.50). When referring to the rule of thumb outer loading the required value which is equal to 0.50, then all indicators expressed in this study are valid for each of the indicators have been eligible outer loading values > 0.50.

Discriminant Validity
Cross Loading
To test the discriminant validity with a reflexive indicators to see a comparison of the value of cross-loading for each variable. Correlation construct organizational learning (X) with the indicator is higher than the correlation constructs competitive advantage (Y) and innovation (Z) and its indicators. Rated loading factor for each of the indicators in the construct competitive advantage (Y) was higher than the value of the indicator loading factor other constructs such as innovation (Z) and organizational learning (X). It is also common on variable innovation (Z). Correlation factor loading values on each indicator was also found to be higher when compared with the correlation value construct loading factor competitive advantage and learning organization, From the above it is concluded that the latent constructs predict indicators on their blocks better than indicators in other blocks.

The square root Average Variance Extracted (Error! Reference source not found. *)*
Models have enough discriminant validity if the root of AVE for each construct is greater than the correlation between the construct and other constructs (Ghozali and Latan, 2015: 39). In this study, the value of the root of AVE of each construct can be seen in the following table:

Table 3 Average Variance Extracted (Error! Reference source not found. **)**

Items	KB (Y)	INO (Z)	PO (X)
KB (Y)	**0718**		
INO (Z)	0603	**0716**	
PO (X)	0651	0622	**0745**

Source: Primary Data 2018 (Data Processed)

From the output results shown in Table 3, the diagonal is the square root value AVE and the value of the underlying is a correlation between the constructs. So it appears that the value of the square root of AVE is higher than the value of the correlation. Through this, it can be concluded that the model estimated valid because it has met the criteria discriminant validity.

Reability Test
In the reliability test, there are two tables that should be observed that the table Composite Reliability and Cronbach's Alpha as shown below.

Table 4 *Composite Reliability* **and Cronbach's Alpha**

Variables	Cronbach's Alpha	composite Reliability
Competitive Advantage (Y)	0.920	0932
Innovation (Z)	0905	0.920
Learning Organizations (X)	0867	0897

Source: Primary Data 2018 (Data Processed)

From the results of data processing can be seen that the composite *reliability* and Cronbach's alpha of each construct exceed 0.7. When referring to the rule of thumb composite value reliability and Cronbach's alpha that each value must be greater than 0.7 (> 0.7), the data in Table 4 declared to be reliable.

Structural Test Model (Inner Model)
R-Square

Testing is done by looking at the structural model R-square value which is a test for goodness-fit model. Here is a table of the R-square value of this research:

Table 5 R-Square

Variables	R-Square
Competitive Advantage (Y)	0488
Innovation (Z)	0387

Source: Primary Data 2018 (Data Processed)

In Table 5 shows that the R-square value competitive advantage (Y) 0,488. This shows that learning organization and innovation contributed to competitive advantage as much as 48.8%, while the rest is explained by other variables. Likewise, the variable innovation (Z) has the R-square value of 0.387. Through this, it can be concluded that innovation obtain contribute as much as 38.7% of the variable learning organization with the remaining percentage is explained by other variables outside the model in this study.

Relevance Predictions (Q2)

Based on the evaluation of the relevance of the prediction by the formula Q2, may prove model in this study has predictive relevance for Q2 a value greater than 0 (Q2 > 0) i.e. with the acquisition value of 0.686144. This means that the model in this study has the ability to predict.

Goodness of Fit (GoF)

After an evaluation of predictive relevance (Q2), then look for the value of GoF (Goodness of Fit). Based on the evaluation of the GoF can prove that the model in this study had Gof medium value, because the scoring obtained amounted to 0.317 which means that the model in this study deserves to be accepted.

Hypothesis testing
Direct Effect

Testing can be done by looking at the results of path coefficient table which will be described as follows:

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Table 6 Path Coefficient

Var	Original Sample (O)	Sample Mean (M)	Standard Error (Sterr)	T Statistics (O / Sterr)	P Value
PO (X) - INO (Z)	0622	0629	0064	9759	0000
PO (X) - KB (Y)	0449	0470	0124	3,618	0000
INO (Z) - - KB (Y)	0324	0307	0147	2,201	0015

Source: Primary Data 2018 (Data Processed)

H1: Organizational Learning significant positive effect on innovation

According to the table 6 States that learning organization significant positive effect on innovation with a coefficient of 0.622 and a significant parameter at 0.05 (P Values 0.000). Thus, Hypothesis 1 (one) in this study received.

H2: Organizational Learning significant positive effect on Competitive Advantage

According to the table 6 States that learning organization significant positive effect on competitive advantage with a coefficient of 0.449 and a significant parameter at 0.05 (P Values 0.000). Thus, Hypothesis 2 (two) in this study received.

H3: Innovation significant positive effect on Competitive Advantage

According to the table 6 States that innovation significant positive effect on competitive advantage with a coefficient of 0.324 and a significant parameter at 0.05 (P Values 0.015). Thus, the hypothesis 3 (three) in this study received.

Indirect Effect

After testing the hypothesis above, the next step is to conduct tests on the indirect effect of the variables used. Test comparison of this contribution can be seen as follows:

1) Direct Impact

   Organizational Learning $\longrightarrow$ Competitive Advantage

   = 0.449 (significant at 0.05 for 0,000 <0.05)

2) Indirect Influence

   Organizational Learning $\longrightarrow$ Innovation $\longrightarrow$ Competitive Advantage

   (0.622 x 0.324) = 0.201 (significant at 0.05 since 0.026 <0.05)

So the model in this study is called Part Mediation for mediating variables that innovation can mediate the relationship between independent variables, organizational learning and the dependent variable is a competitive advantage. Data view Value P value of 0.026 which is smaller than 0.05, which means that the hypothesis 4 (four) in this study received.

Conclusions

Overall the results of research and discussion has been done on the effect of Organizational Learning on Innovation as a Competitive Advantage with mediating variables colleges in the city of Padang, it can be concluded as follows:

Organizational Learning significant positive effect on innovation at the college in Padang. Based on the results obtained in this study the higher an organization learning in a course the higher the innovations made by the study program. If an organization already has a high organizational learning, the higher the desire of the study program be better than another course by means of innovations.

Organizational Learning significant positive effect on Competitive Advantage in college in Padang. Based on the results obtained in this study the higher an organization learning in a course the higher the desire of the study program has the competitive advantage of other courses. If an organization already has a high organizational learning, the higher the desire of the study program be

better than another course to have a competitive advantage so that the course can be the most superior in the city of Padang.

Innovation significant positive effect on Competitive Advantage in college in Padang. Based on the results obtained in this study the higher an innovation in a course of study, the higher the possibility of a course of study has a competitive advantage where the competitive advantage will be used to win the competition program of study in the city of Padang. The study program is always innovating will continue to increase their competitive advantage.

Organizational Learning significant positive effect on Competitive Advantage mediated by Innovation at the college in Padang. Based on the results obtained in this study that competitive advantage will be achieved by a course of study if the study program innovation. Innovation will be achieved by the study program if the course is always doing the learning organization. So if a course like to get a competitive advantage that the study program must innovate supported by organizational learning.

Suggestion

The program of study at universities in Padang must always implement organizational learning that is by always learning something new related to organizational learning in courses, Consolidating (unify) the knowledge and skills of the latest coordinated study programs and Having staff with the knowledge and recent coordinated skills.

The program of study at universities in Padang have to constantly innovate by way of programs and services that are very nice to support the program of study, produce graduates who are on time and better than other courses, develop new services in the study program, and develop new staff welfare system so that it can effectively provide incentives for existing staff.

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