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The Influence of Academic Culture and Task Commitment Toward Lecturers' Innovativeness

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Abstract

This study aims to investigate the academic culture and task commitment toward lecturers' innovativeness. Quantitative survey methods were adopted. To collecting the data, a questionnaire and path analysis were used. Two hundred fifteen lecturers at several universities in Jakarta (Indonesia) participated in the study. The results indicate that many academic cultures positively give direct influences to lecturers' innovativeness, and task commitment positively gives direct influences to lecturers' innovativeness. The study concludes that training and mastery of the use of media are needed to improve the competence and innovation of lecturers in conducting scientific research.
Keywords: Academic culture; Task commitment; Lecturers' innovativeness.

1. Introduction

Academic culture on campus is an external reflection of common morals, spirit, and norms of a person who strive to expand study and research. These cultures can be formed through rules and regulation, behaviour pattern, and facilities. University integrates cultural construction into the whole process of talent-training. In university, cultural construction is closely related to talent-training. As explained by Shen and Tian (2012), academic culture covers four aspects, which are: (1) Academic View. This aspect shows the main view of a person regarding academic activities and it is divided into the views of academic ontology, academic behaviour, academic purpose, academic development, and academic evaluation, (2) Academic Spirit. This covers the spirit to explore, innovate, criticise, cooperate, tolerate, be open, be free, and to integrate knowledge and humanity, (3) Academic Ethics. The academic ethics shows the norms and regulations that must be upheld by everyone during study and academic activities. This mostly covers the relationship between individuals, relationship with the public, and the relationship between people and nature. In fact, it also covers academic research norms, academic evaluation norms, and academic critic norms, (4) Academic Environment. Academic environment covers hardware and software environments. Hardware environment includes equipment that support study and academic activities such as infrastructure, public neccesities, special equipment, research room, books and other information, the opportunity to communicate and share between individuals, boarding, and research funding.

Ninlawan (2015) argues that there is an equal correlation between academic culture and management in order to be prepared to approach the MEA in five dimensions at the secondary level. Academic culture and tradition are things that are born and then collectively upheld by an academic public. By the concept and framework of academic culture, international academic activities such as international collaborations can be discussed and analysed from academic people's perspectives and factors that influence international academic collaboration could be clarified. Consequently, topics of globalised academic work in social sciences could be deployed from more diverse and different angles than the existing discussions which stick to and are confused with nation-states' perspectives (Okamoto, 2015). According to Shavinina (2013) task commitment is the persistence, endurance, hard work, real dedication, believe toward one's abilities, and the ability to finish important work. From several views that were offered by the experts above, task commitment is the strong desire of an individual.

In the European policy innovation, a central element for the development of higher education, students are invited to learn together with faculty to develop new solutions products and services (Hero et al., 2017). It is for creative learning, social authentic and collaborative learning environment that is attractive to, the competence of individuals to be able to design innovation, tutor and assess the pedagogical process, where authentic open tasks being completed to transform new ideas into process education.

Innovation can be defined as new ideas, products or practices by an individual or group within a specific social system (Narayanan, 2018). Innovation in learning methods can create a rich learning experience and motivates the learning process, improvement in students soft skills, critical thinking and problem solving (Naga Subramani and Iyappan, 2018). In the 21st century, world-class universities will need to be much more focused on innovation, rather than on stability and standardisation. An innovative organisation is different from a stable one. It requires different skills from its participants, and it functions differently from a stable organisation. A focus on innovation will necessitate a different kind of university from what exists at most institutions today. Those who want to create and maintain a world-class university will need to develop a culture of innovation in their organisations (Tierney, 2014).

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Innovation, according to Narayanan (2018), is two processes. One understanding is that innovation is a process where an individual or an organisation comes to a technical solution and output. Another understanding is that the output is a result of innovation, a technical opportunity, or something that is needed from a client. In the field of education, teaching methodologies and innovative ideas are seen as two sides of a coin. Effective teaching methodologies depend on students' needs and adequacy of the content (Hashim *et al.*, 2019).

This study linking innovations learning and its effect on academic culture and task commitment. The factors show in lecturers becoming not innovative such as disadvantages lecturers, lack of teaching commitment and academic culture, lack of competence, facilities, desire, and motivation. The purpose of this study is to investigate the academic culture, task commitment and lecturer innovation. Discussion focuses on providing training to improve lecturers' competence and master the use of various learning media to encourage lecturers to be innovative in conducting scientific research.

2. Material and Method

In total 215 lecturers from three Universities in Jakarta participated in this study. They were selected as the representatives of full-time lecturers who had a minimum of 5 years experience. In other words, two hundred-fifteen were chosen as samples. This study applied path analysis to gain important information from the participants and employs a qualitative approach.

The tool used for collecting the data for qualitative is a Likert scale questionnaire. Part 1: The general information of participants. The questions would be conducted in a checklist. Part 2: The information regarding the Lecturers' Innovativeness (Y) as the endogenous variable and Academic Culture (X1) and Task Commitment (X2) as the exogenous variable. The questionnaires conduct to see and analyse the lecturers' using google form and consist of three variables with 25 questions each rating scale used. The research data were processed and analysed variables with path analysis for the researcher able to create diagrams that show the influence between task commitment and academic culture. This Path analysis begins with the test requirements include the analysis of normality test, linearity test and significance of a regression. The questionnaires data used to gain information on the pattern of participants that could not be accessed that was done through paper-based as the media. After gaining the data, it was then analysed into form and then categorised. Part 3: The process analysis on characteristics of academic culture and task commitment toward lecturers' innovativeness.

3. Results

The data in this section covers the instruments of Lecturers' Innovativeness (Y) as the endogenous variable and Academic Culture (X_1) and Task Commitment (X_2) as the exogenous variable. The description of each variable will be explained in order from Y, X_1, and X_2.

3.1. Lecturers' Innovativeness (Y)

From data acquired in the field which was then statistically processed in a frequency distribution from which the number of classes is counted according to Sturges formula, there were seven classes with the maximal score of 111 and the minimum score of 77. From the calculation, the average is 102,04, the standard deviation is 6.56, the variance is 43.0965, and the median is 96,07. The data interpreting from path analysis there was direct positive effects to task commitment through lecturers' innovativeness with correlation 0.589 and path coefficient at 0.341. The task commitment gives direct positive effects to lecturers' innovativeness is accepted. As Rifa'i *et al.* (2018) stated in his study that task commitment gives a direct improvement of work discipline.

3.2. Academic Culture (X_1)

The academic culture data has a theoretical score range from 78 until 111 and an empirical score range between 98 and 25. Thus, the score range is 33. From the calculation, the average is 98.25, the standard deviation is 9.93, the variance is 98.5773, and the median is 93.33. Based on the data analysis, there were direct positive effects of academic culture toward innovation learning with the correlation 0.600 and the path coefficient 0.352, means the effect of academic culture on lecturers innovativeness is accepted. This result is in line with Tian *et al.* (2018) who stated that culture affects innovation.

3.3. Task Commitment (X_2)

The task commitment data has a theoretical score range from 25 until 125 and an empirical score range between 78 and 119. Thus, the score range is 27. From the calculation, the average is 105,40, the standard deviation is 5.77, the variance is 33.3043, the median is 100,61, and the mode is 103,56. A histogram was made based on the table above. There are two axes in a histogram which are the vertical axis is the absolute frequency axis and the horizontal axis as the instrument score acquisition axis. In this case, the horizontal axis refers to the limits of the class interval starting from 84.5 to 112.5. These values were acquired from subtracting 0.5 from the smallest number and adding 0.5 at each of the upper limits.

From the path coefficient test, there was a direct positive effect on academic culture through task commitment, with the correlation at 0.304 and path coefficient at 0.304. This means academic culture give positive direct effect through task commitment is accepted that in line with Nongo and Ikyanyon (2012) where culture influence workers of an organization's commitment in correlation with the strength of the corporation's culture.

3.4 Significance Test and Regression Linearity Analysis

Based on the result of Regression analysis, this study found several results as shown in Table 1.

Table-1. Significance Test and Linearity Test Summary

Regression	Equation	Significance Test			Linearity Test		
		F_{count}	F_{table}		F_{count}	F_{table}	
			$\alpha = 0{,}05$	$\alpha = 0{,}01$		$\alpha = 0{,}05$	$\alpha = 0{,}01$
Y on X_1	$\hat{Y} = 70.24 + 0.52X_1$	25.43 **	4.03	6.76	1.42 ns	2.26	3.11
Y on X_2	$\hat{Y} = 53.85 + 0.84X_2$	22.85 **	4.03	6.76	1.95 ns	1.95	3.23
X_2 on X_1	$\hat{X}_2 = 85.65 + 0.24X_1$	6.31 *	4.03	6.76	1.82^{ns}	1.82	3.42

Description :
* : Significant
** : Very Significant
Ns : Not Significant (linear regression)

a. Lecturer Innovation in the Learning process Instrument on Academic Culture Significance Test and Regression Linearity

From the result of the calculated data for forming a regression equation between lecturer innovation in the learning process and academic culture in Appendix 5, a regression constant of a = 70.24 and a regression coefficient of b = 0.52 was acquired. Thus, the simple linear regression relation model equation is $\hat{Y} = 70.24 + 0.52X_1$.

From the regresssion formula $\hat{Y} = 70.24 + 0.52X_1$, the value $F_{count} = 24.32$ is larger than the value F_{table} 6.76 on $\alpha = 0.05$. Because $F_{count} > F_{table}$, it is stated that the regression equation is very significant. For the linearity test, an F_{hitung} value of 1.42 was acquired which is smaller than F_{table} by 2.23 on $\alpha = 0.05$. Because $F_{count} < F_{table}$, the point distribution that is estimated to form the linear line can be accepted.

b. Lecturer Innovation in the learning process in the Instrument on Task Commitment Significance Test and Regression Linearity

From the result of the calculated data for forming a regression equation between lecturers' innovativeness and academic culture in Appendix 5, a regression constant of a = 53.85 and a regression coefficient of b = 0.84 was acquired. Thus, the simple linear regression relation model equation is $\hat{Y} = 53.85 + 0.84X_2$.

3.4. Hypothesis Test

Based on the result of hypothesis test, this study found several results as shown in Table 1.

Table-2. Direct Influences Between Variables

No.	Direct Influence	Path Coefficient	dk	t_{count}	t_{table}	
					$\alpha = 0.05$	$\alpha = 0.01$
1.	X_1 on Y	0.422	211	4.21 **	1.97	2.35
2.	X_2 on Y	0.436	211	3.68 **	1.97	2.35
3.	X_1 on X_2	0.325	213	3.46 *	1.97	2.35

* = significant ($t_{count} > t_{table}$ pada $\alpha = 0.05$)
** = very significant ($t_{count} > t_{table}$ pada $\alpha = 0.01$)

Academic Culture (X_1) direct positive influence towards Lecturer Innovation in the learning process (Y) $H_0: \beta_{y1} \leq 0$; $H_1: \beta_{y1} > 0$; H_0 is rejected if $t_{count} > t_{table}$. From the path analysis calculation on the direct influence of academic culture towards lecturers innovation in the learning process, the path coefficient value is 0.422 and the t_{count} value is 4.21. The t_{table} value for $\alpha = 0.05$ is 1.97. Since the t_{count} value is larger than the t_{table} value, H_0 is rejected while H_1 is accepted meaning that academic culture has a direct influence on lecturer innovation in the learning process. The result of the first hypothesis analysis shows that academic culture directly positively influences lecturers' innovativeness. Thus it can be said that lecturers' innovativeness is influenced directly and positively by academic culture. Raising academic culture will result in raising lecturers' innovativeness.

Task Commitment (X_2) direct positive influence towards Lecturers Innovation in the learning process (Y) $H_0: \beta_{y2} \leq 0$; $H_1: \beta_{y2} > 0$; H_0 is rejected if $t_{count} > t_{table}$. From the path analysis calculation on the direct influence of task commitment towards lecturers' innovativeness, the path coefficient value is 0.436 and the t_{count} value is 3.68. The t_{table} value for $\alpha = 0.05$ is 1.97. Since the t_{count} value is larger than the t_{table} value, H_0 is rejected while H_1 is accepted meaning that task commitment has a direct influence on lecturers' innovativeness. The result of the second hypothesis analysis shows that task commitment directly positively influences lecturers' innovativeness. Thus it can be said that lecturers' innovativeness is influenced directly and positively by task commitment. Raising task commitment will result in raising lecturers' innovativeness.

Academic Culture (X_1) direct positive influence towards Academic Culture Effects (X_2): $H_0: \beta_{21} \leq 0$; $H_1: \beta_{21} > 0$; H_0 is rejected if $t_{count} > t_{table}$. From the path analysis calculation on the direct influence of academic culture towards task commitment, the path coefficient value is 0.325 and the t_{count} value is 3.46. The t_{table} value for $\alpha = 0.05$ is 1.97. Since the t_{count} value is larger than the t_{table} value, H_0 is rejected while H_1 is accepted meaning that academic culture has a direct influence on task commitment. The result of the first hypothesis analysis shows that academic culture

directly positively influences task commitment. Thus it can be said that task commitment is influenced directly and positively by academic culture. Raising academic culture will result in raising task commitment.

4. Discussion

The result acquired from the analytical model is used as the basis to answer the hypotheses and to draw the conclusion of this research. The discussion of the answer to the hypotheses can be explained in the following paragraphs.

The influence of Academic Culture (X_1) towards Lecturers' Innovativeness (Y). From the path analysis calculation, it can be seen that there is a positive direct influence of academic culture towards innovation learning with a correlation coefficient of 0.722 and a path coefficient of 0.422. This means that academic culture directly influences innovation learning can be accepted. This result is in line with the opinions of several other experts including According to Shavinina (2013), task commitment is the persistence, endurance, hard work, real dedication, believe toward one's abilities, and the ability to finish important work. Their views have the capacity to raise innovation in the culture of an organization and management process as the culture of an organization is the heart of innovation in an organization, (2) (Ninlawan, 2015)conduct a research of academic culture effect in administration of private school, the finding indicated that the relationship between the academic culture and the management in order to be prepared for approaching the AEC in five dimensions in the medium level and correlates in the same direction, (3) A focus on innovation will necessitate a different kind of university from what exists at most institutions today. Those who want to create and maintain a world class university will need to develop a culture of innovation in their organizations (Tierney, 2014).

Regarding the influence of Task Commitment (X_2) towards Lecturers' Innovativeness (Y) through path analysis calculation, there is a direct positive influence of task commitment towards Lecturers Innovation in the learning process with a correlation coefficient of 0,664 and a path coefficient of 0.436. This means that task commitment directly influences Lecturers' Innovativeness can be accepted. This research result is in line with several others. In the context of an employee in an organisation, innovative work and behaviour are most probably influenced by the practical orientation of human resource management of which empirical data regarding influence towards human resource management and high innovation and high commitment towards the management of individual human resources are hard to find.

Regarding the influence of Academic Culture (X_1) towards Task Commitment (X_2) through path analysis calculation, there is a direct positive influence of task commitment toward Lecturers' Innovativeness with a correlation coefficient of 0.325 and a path coefficient of 0.413. As the opinion of Riley (2002). Learning technologies are regularly associated with innovative teaching but will they contribute to profound innovations in education.

5. Conclusion

Our study, based on a quantitative survey showed that conducive academic culture has a positive direct effect on lecturers' innovativeness and task commitment. The conclusion answered the three research questions that already found and analysed as follows:

1. Is there any significant difference influence between academic culture and Lecturers' Innovativeness? Based on the data analysis, there were direct positive effects of academic culture toward lecturers' innovativeness with the correlation 0.722 and the path coefficient 0.422, means the effect of academic culture on innovation learning is accepted. This result is in line (Ninlawan, 2015) conduct research of academic culture effect in the administration of the private school.
2. Is there any significant difference influence between task commitment and lecturer's innovativeness? From the data interpreting from path analysis there was direct positive effects to task commitment through innovation learning with correlation 0.664 and path coefficient at 0.436. The task commitment gives direct positive effects to innovation learning is accepted. As Riley (2002) learning technology can be linked to innovative teaching, stated in his study that task commitment gives a direct improvement of work discipline.
3. Is there any significant between difference influence academic culture and task commmittment? From the path coefficient test, there was a direct positive effect on academic culture through task commitment, with the correlation at 0.325 and path coefficient at 0.413. This means academic culture give positive direct effect through task commitment is accepted that in line with Riley (2002) learning technology can be linked to innovative teaching, stated in his study that task commitment gives a direct improvement of work discipline.

Recommendation

The conclusion and implication above were the basis to identify several suggestions to build lecturers' innovativeness. It is suggested to build an academic culture to support lecturers' innovativeness and to improve provide freedom and independence to lecturers in conducting academic activities. As a researcher, lecturers need to be free of which the freedom needs to follow professional and civil ethics. The lecturer suggested they should have a good command of various teaching media to build task commitment to support lecturers' innovativeness. With a good command in IT, lecturers will have higher motivation and their students will have higher curiosity. The use of IT in teaching has many benefits such as its flexibility, ease for users, effectivity, efficiency, high compatibility,

complimentative, and integrative with other media formats that are convergent. In the end, the campuses to build an academic culture to support task commitment suggested need to encourage lecturers in writing articles based on research or public service that must be ready to be published in national and international publications to form the spirit of a World-Class University. In line with Tierney (2014) that the 21st century, is that world-class universities will need to be much more focused on innovation, rather than on stability and standardisation. Moreover, a focus on innovation will necessitate a different kind of university.

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