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IMPACT OF HARD SKILLS, SOFT SKILLS AND ORGANIZATIONAL CULTURE : LECTURER INNOVATION COMPETENCIES AS MEDIATING

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Abstract

This study aims to measure the effect of hard skills and soft skills on the innovation ability of private university lecturers in Jabodetabek mediated by organizational culture. Data collection is done by simple random sampling via electronic to the population of private university lecturers in Jabodetabek. The returned and valid questionnaire results are 513 samples. Data processing using SEM method with SmartPLS 3.0 software. The results of this study concluded that hard skills and soft skills have a positive and significant effect on the ability of lecturers' innovation, both directly and indirectly through organizational culture mediation This new research proposes a model to build the ability of lecturer innovation among the lecturers of private tertiary institutions in Jabodetabek through enhancing hard skills and soft skills with organizational culture as a mediator. This research can pave the way to improve the readiness of lecturers in facing the 4.0 education era.

Keywords: Hard skills; education 4.0;organizational culture; soft skills; teacher innovation capability

Introduction

Dramatic changes that came from the industrial revolution 4.0. became a new challenge for education. This industrial revolution requires the quality of human resources that are more qualified, agile, adaptive and responsive to rapid changes. The world of education faces economic, social, political and technological changes so quickly. Therefore, universities must be flexible to be able to adapt the situation and changing contexts. education and Higher other educational institutions need an environment that continues to grow positively and is conducive global human resource in competition and performance. The point is that in this era of knowledge economy emerging knowledge societies need innovation flexibility and as survive competition. energy to strategic Therefore, the development of educational institutions in the future is to knowledge increase resources. especially lecturers, which open space for innovation and growth.

To ensure that educational institutions, especially universities can be competitive and adaptive, lecturers need to be directed and involved in pumping up university performance. Lecturers must be empowered and empowered. As a result, tertiary institutions must materialize into a organizational trulv culture.

Organizational culture which empowers lecturers as one of the main elements of transformation of universities, as well as lecturers as instruments of civilization. The form of higher education as an organizational culture is very important for educational institutions that operate in with environments rapid and unexpected changes. So that the speed of response to change becomes an absolute requirement to print human resources, students who are competitive and win global HR competition.

The knowledge of individual lecturers and tertiary institutions becomes intellectual capital which quickly becomes a new icon that illustrates the economic value of a tertiary institution. This the is new paradigm adapted from industrial revolution 4.0. Dependence on traditional productive assets such buildings. land and other as tangible assets is no longer a major investment contribution in the future. Productive and sustainable assets in the future are intangible assets in the form of knowledge inherent in lecturers. This study seeks to understand and explain the influence of lecturers' hard skills and soft skills on their teacher innovation capability. Then also measured the effect of organizational culture mediation on the relationship between hard skills, soft skills and innovation of lecturers in Indonesia.

Literature Review and Hypothesis

Hard Skills

Hard skills are one type of knowledge that is easily documented and formed (Choi & Lee, 2003; Sousa & Rocha, 2019; Borrego et al, 2019; Wokcik et al, 2019; Cifariello, Ferragina & Ponza, 2019; Che et al, 2018; Tang et al, 2016; Bashir & Farooq, 2019; Attia & Salama, 2018), easily articulated (Haamann & Basten. 2018) and usually constitute knowledge inherent in higher education (Afsar, Masood & Umrani, 2019). In addition, hard skills can be created, written and transferred between higher education activity units (Lombardi, 2019). The transfer of hard skills among lecturers is more easily encouraged by the conducive mechanism and culture of higher education.

Hard skills can be described in general and are also based on the specific context in which these skills are used. Rainsbury et al. (2002) defines hard skills skills related to technical aspects to perform several tasks in work. Therefore, hard skills are basically cognitive and are influenced by intellectual quotient (IO) (Muhammad et al., 2019; Kenayathulla, Ahmad & Idris, 2019; Tsotsotso et al., 2017; Fan, Wei & Zhang, 2017). Contextually, some researchers use the concept of hard skills in particular the state of management. Azim et al. (2010) generally refers to hard skills in the context of project management as processes, procedures, tools, and

techniques (Gale et al, 2017; Laker & Powell, 2011)

Hard skills describe behaviors and skills that can be seen in the eye (explicit). Hard skills are skills that can produce something that is visible and direct. Hard skills can be assessed from technical tests or practical tests. We can see elements of hard skills from quotient thinking intelligence which have indicators to calculate, analyze, design. broad insights and knowledge. model making and critical. Hard skills are related to mastery of science, technology and technical skills related to the knowledge department. A lecturer must have skills in opening lessons, managing classes, designing group discussions, arranging rooms, and writing well (Muqowim, 2012). Hard skills are relatively easy skills to Widoyoko distinguishes measure. between two hard skills, namely their academic and vocational skills. Academic skills are the ability to master various concepts in the field of study, such as skills to define, count, explain, describe, classify, identify, describe, predict, analyze, compare, differentiate, and draw conclusions from various concepts, data and facts related to the subject (Widoyoko, 2009)

Soft Skills

Knowledge is classified into two types including: soft skills and hard skills (Polanyi, 1966). The definition of soft skills is knowledge that is still in the minds of humans and is highly personal (Chen et al, 2018; Holford, 2018; Khoshorour & Gilaninia, 2018; Zebal, Ferdous & Chambers. 2019; Agyemang & Boateng, 2019; Perez-Fuillerat et al, 2018), it is difficult to be formulated and divided naturally (Deranek, McLeod & Schmidt, 2017; Wang & Liu, 2019; Asher & Popper, 2019) so that transformation requires personal interaction (Lee, 2019). These soft skills are rooted in one's actions and experiences. including idealism, values, and emotionality (Boske & Osanloo, 2015; Kawamura, 2016; Hartley, 2018).

Based on his understanding, soft skills are categorized as personal other knowledge or in words knowledge obtained from individuals or individuals (Nonaka & Toyama, 2015; Munoz et al, 2015; Stewart et al, 2017; Razmerita et al, 2016; Jaleel & Verghis, 2015 ; Wang et al., 2016; Serna et al., 2017; Jou et al., 2016; Rothberg & Erickson, 2017). The experience gained by each lecturer certainly varies based on situations and conditions that cannot be predicted. Soft skills are not easily articulated and converted into hard skills (Mohajan, 2016: Prasarnphanich et al, 2016; Addis, 2016; Cairo Battistutti, 2017; Zang et al, 2015; Spraggon & Bodolica, 2017). Nevertheless, soft skills can be empowered by the process of knowledge spiral or SECI Model (Li, Liu & Zhou, 2018; Nonaka & Hirose, 2018; Chatterjee et al, 2018; Sasaki, 2017; Lievre & Tang, 2015; Stanica & Peydro, 2016; Norwich et al., 2016; Hodgins & Dadich, 2017; Balde et al., 2018; Okuyama, 2017; Huang et al., 2016).

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Everv private tertiarv institution must utilize the soft skills of its lecturers by encouraging them to share knowledge and continue learning. Private universities like this will become more creative. innovative and lead in the era of education 4.0. Higher education can facilitate the management and use of tacit knowledge that is beyond awareness stored in subconscious mind of each lecturer with an embedding and sharing approach (Ma et al, 2018; Ferreira et al, 2018; Borges et al, 2019; Ferraris et al, 2018; Guo et al, 2018; Tsai & Hsu, 2019; Swierczek, 2019; Cantwell & Zaman, 2018).

Organizational Culture

А good organizational culture will be more resilient to crises (Starbuck, 2017). Dimensions such as desire, discipline, decision making, and alignment are presented as important elements of organizational learning (Wetzel & Tint, 2019; Urban & Gaffurini, 2018). Organizational culture is also an important performance indicator for evaluating performance of the organization as a whole (Qi & Chau, 2018) which is able to help build the necessary knowledge resources and maintain the growth and continuity of higher education. The ability to access knowledge is a distinguishing factor between one tertiary institution and another. The success of the strategy of private tertiary institutions is very significant related to the solid knowledge base owned by every individual of private tertiary institutions.

Teacher Innovation Capability

industrial The era 4.0currently requires teacher innovation capability as a competitive advantage in higher education (Malik, 2019; Muscio & Ciffolili, 2019; Durana et al, 2019; Lund & Karlsen, 2019; Haseeb et al, 2019; Jakhar et al, 2018; Hamada, 2019), competitive strategy (Culot, Orzes & Sartor, 2019), the key to facing industry era 4.0 (Stachova et al, 2019) part of the quality of 21st century management (Gunasekaran, Sabramanian & Ngai, 2019), has many advantages towards business (Zambon et al. 2019: Parida, Sjodin & Reim, 2019). The ability of innovation is recognized as one of the most important internal resources that can produce superior performance of private universities (Zouaghi et al, 2018; Santoro et al, 2017; Castela et al, 2018; Ruiz-Torres et al, 2018; Huesig & Endres, 2019). Innovation is an important aspect of quality education (Klaeijsen, Vermeulen, & Martens, 2017).

The Influence of Hard Skills and Soft Skills on Hunter Innovation Capability

In the current industry 4.0 era, marked by increasingly fierce competition, sustainability remains a concern and an important issue. Speaker innovation capability is driving business sustainability. This performance depends on the culture of knowledge contained in the

organization. Knowledge that consists of tacit and hard skills. Many researchers discuss teacher innovation capability which concludes that innovation is influenced by leadership (Samsir, 2018; Schuckert et al, 2018; Villaluz & Hechanova, 2019), employee involvement climate (Naqshbandi, Tabche & Choudhary, 2019) knowledge sharing (Kim & Shim, 2018) knowledge search (Wang, Chen & Chang, 2019) collaborative culture (Yang, Nguyen & Le, 2018) and knowledge process (Imran et al, 2018). This study, would like to examine the effect of hard skills and soft skills on teacher innovation capability in private universities in order to welcome industrial revolution 4.0. Previous researchers proven the positive have and significant influence of hard skills and soft skills on teacher innovation capability (Ganguly et al, 2019; Aulawi, 2018; Rumanti et al, 2018 & 2019; Torres & Liang, 2016; Li et al, 2019). More specifically, many researchers conclude that soft skills have a positive and significant effect on teacher innovation capability (Perez-Luno et al. 2018). All of them are within the scope of business organizations. However, there are researchers who mention that formal & informal learning affect teacher capability innovation in the university height (Lecat, Beausaert, & Raemdonck, 2018). Based on the literature, above the following hypotheses are arranged:

H¹: Hard skills directly affect teacher innovation capability
H²: Soft skills have a direct effect on teacher innovation capability

Effects of Hard Skills and Soft Skills on Organizational Culture

Learning organization becomes one of the strategies for organizations to study the dynamics their business environment of (Senge, 1990; Zhu et al., 2018; Kasim et al., 2018; Darwish et al., 2018). Higher education with a learning managed routine will produce of а collection knowledgeable individuals. both hard skills and soft skills (Hussain et al. 2018). Some researchers conclude organizational that culture is influenced by collaborative culture and knowledge sharing (Nugroho, 2018). Soft skills are found to be very significant predictors for the development of organizational culture (Muthuveloo, Shanmugam & Teoh, 2017). Based on the above literature, the hypotheses to be tested are as follows:

H³: Hard skills directly affect organizational culture H⁴: Soft skills have a direct effect on organizational culture

The Effect of OrganizationalCultivationonTheacherInnovation Capability

Knowledge creation conditioned by organizational culture will trigger and spur teacher innovation capability and organizational performance (Asbari, Purwanto & Santoso, 2019; Vijande & Sanchez, 2017; Lin & Lee, 2017). Higher education innovation will be sustainable when it is based on a learning culture that adds value. This learning culture that makes all lecturers interact with each other so that their current knowledge and new knowledge acquired can be effectively transferred, exchanged and combined into the intelligence and knowledge of higher education (Lin & Lee, 2017: Lee et al. 2016: Chang & Lin. 2015). An organizational environment that provides excitement at work is an important factor in creating teacher innovation capability of organizational members (Bani-Melhem, Zeffane & Albaity, 2018). Furthermore, based on the above literature, the hypotheses to be tested are as follows:

H⁵: Organizational culture has a direct effect on teacher innovation capability

The Effect of Organizational Culture Mediation on the Relationship of Hard Skills, Soft Skills and Teacher Innovation Capability

Honeycutt (2000)explains that knowledge management is а discipline that treats intellectual capital managed from assets. Because, the concept of knowledge management basically develops from the fact that in the present and future, the main assets of an organization to be able to compete are intellectual or knowledge assets, physical not assets. In general, knowledge carried management out bv organizational culture is a technique or way to manage knowledge in organizations to create value and increase competitive advantage. Organizational culture as a mediating variable, plays a role between hard skills, soft skills and organizational innovation. In addition, this process has been considered a system where knowledge and skills are input, organizational culture is the main process. and organizational innovation is an important output

(Nouri&Ghorbani, 2017; Chang, Liao & Wu, 2017).

Furthermore, based on the above literature, the hypotheses to be tested are as follows:

H⁶: Hard skills have an indirect effect on teacher innovation capability through mediating organizational culture

 $H^{\overline{7}}$: Soft skills have an indirect effect on teacher innovation capability through mediating organizational culture

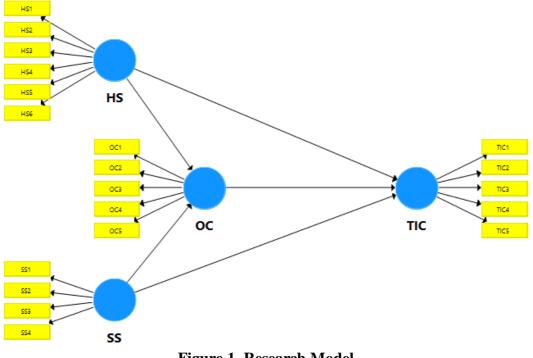


Figure 1. Research Model

Research Method

Operational Definitions of Variables and Indicators

The method used in this research is quantitative method. Data was collected by distributing

questionnaires all private to university lecturers. The instrument used to measure hard skills was adapted from Hendarman & Cantner (2017) using 6 items. Soft skills were also adapted from Hendarman & Cantner (2017) using 4 items. Organizational culture is measured from instruments adapted from Jiménez-Jiménez and Sanz-Valle (2011) using 5 items. Teacher innovation capability was adapted from Lee & Choi (2003) using 5 questionnaire items. The was designed closed except for questions / statements about the identity of respondents in the form of a semiopen questionnaire. Each closed question / statement item is given five answer options, namely: strongly agree (SS) score 5, agree (S) score 4, disagree (KS) score 3, **Results and Discussion**

disagree (TS) score 2, and strongly disagree (STS) score 1. The method for processing data is by PLS and using SmartPLS software version 3.0 as a tool.

Population and Sample

The population in this study isIslamic tertiary lecturers in Jakarta and Tangerang whose numbers have not been identified with certainty. The questionnaire was distributed electronically with a simple random sampling technique. The results of the questionnaire returned were 521 and valid were 513 samples. So 98.46% is valid from the number of questionnaires collected.

Sample Description

Criteria	Amount	%		
Age (per Oktober 2019)	< 30 years old	105	20.41%	
,	30 - 40 years old	239	46.60%	
	> 40 years old	169	32.99%	
Lecturer Status	Public (ASN)	159	31.07%	
	Private (Swasta)	354	68.93%	
Working period as a lecturer	< 5 years old	162	31.66%	
	5-10 years old	249	48.52%	

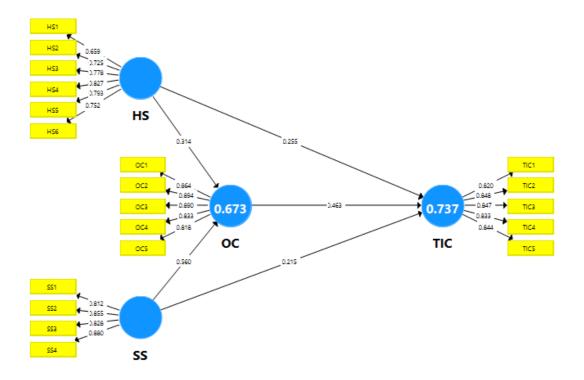
	> 10 years old	102	19.82%
Highest diploma	< S1	41	7.99%
	> S1	472	92.01%

Test Results Validity and Reliability of Research Indicators

The testing phase of the measurement model includes validity. convergent discriminant validity and composite reliability testing. The results of PLS analysis can be used to test the research hypothesis if all indicators inPLS model have met the requirements of validity, discriminant convergent validity and reliability testing.

1. Convergent Validity Testing

Convergent validity test is done by looking at the loading factor value of each indicator to the construct. For most references, a factor weight of 0.5 or more is considered to have validation that is strong enough to explain latent constructs (Chin, 1998; Hair et al, 2010; Ghozali, 2014). In this study the minimum limit on the size of loading factor received was 0.5, with the requirement that the AVE value of each construct> 0.5 (Ghozali, 2014).



Based on the estimation results of PLS model in the picture above, all indicators already have a loading factor value above 0.5 so that the model meets the convergent validity requirements. In addition to looking at the loading factor value of each indicator, convergent validity is also assessed from the AVE value of each construct. The AVE value of each construct of this study is already above 0.5. So the convergent validity of this research model meets the requirements. The value of loadings, cronbach's alpha, composite reliability and AVE of each construct can be seen in table 2 below:

Table 2. Items Loadings, Cronbach's Alpha, Composite Reliability, and Average Variance Extracted (AVE)

Variables	Items	Loadings	Cronbach's Alpha	Composite Reliability	AVE
Hard Skills	HS1	0.699	0.852	0.889	0.574
(HS)	HS2	0.725			
	HS3	0.778			
	HS4	0.827			
	HS5	0.793			
	HS6	0.752			
Soft Skills	SS1	0.812	0.866	0.908	0.713
(SS)	SS2	0.855			
	SS3	0.828			
	SS4	0.880			
Organizational	OC1	0.864	0.912	0.934	0.740
Culture	OC2	0.894			
(OC)	OC3	0.890			
	OC4	0.833			
	OC5	0.818			
Teacher	TIC1	0.820	0.895	0.922	0.703
Innovation					
Capability	TIC 2	0.848			
(TIC)	TIC 3	0.847			
	TIC 4	0.833			
	TIC 5	0.844			

2. Testing Discriminant Validity

Discriminant validity is carried out to ensure that each concept of each latent variable is different from the other latent variables. The model has good discriminant validity if the AVE squared value of each exogenous construct (the value on the diagonal) exceeds the correlation between construct and other construct (values below the (Ghozali, 2014). The diagonal) discriminant results of validity Table 2 Discriminant Validity

testing using the AVE squared value, namely by looking at the Fornell-Larcker Criterion Value obtained as follows:

Variables	HS	OC	SS	TIC
HS	0.758			
OC	0.730	0.860		
SS	0.744	0.793	0.844	
TIC	0.753	0.819	0.771	0.839

The results of discriminant validity test in table 3 above show that all constructs have AVE square root values above the correlation value with other latent constructs (through the Fornell-Larcker criteria) so that it can be concluded that the model meets the discriminant validity.

3. Constructive Reliability Testing

Construct reliability can be assessed from the value of cronbach's alpha and composite reliability of each construct. The recommended value of composite reliability and cronbach's alpha is more than 0.7. (Ghozali, 2014). The reliability test results in table 2 above show that all constructs already have composite reliability and cronbach's alpha value is greater than 0.7 (> 0.7). In conclusion, all constructs have met the required reliability.

Hypothesis Test

Hypothesis testing in PLS is also referred to as the inner model test. This test includes a test of the significance of indirect direct and effects and measurement the magnitude of on endogenous variables exogenous influence. To determine the effect of tacit and hard skills sharing on organizational culture and teacher innovation capability, a direct influence test is needed. The direct effect test was carried out using the t-statistic test in a partial least squared (PLS) analysis model using the help of SmartPLS 3.0 software. With the boothstrapping technique. R Square values and significance test values were obtained as in the table below:

		R Square			R Square Adjusted		
TIC		0.	737		0.735		
00	0.	673		0.672			
Table 5. Hypotheses Testing							
Hypotheses	Relationship	Beta	SE	T Statistics	P- Values	Decision	

Table 4.R Square Value

H1	HS -> TIC	0.255	0.045	6.128	0.000	Supported
H2	SS -> TIC	0.215	0.040	3.474	0.000	Supported
H3	HS -> OC	0.314	0.038	9.943	0.000	Supported
H4	SS -> OC	0.560	0.035	13.449	0.000	Supported
H5	OC -> TIC	0.463	0.047	10.695	0.000	Supported
H6	HS -> OC -> TIC	0.145	0.030	6.400	0.000	Supported
H7	SS -> OC -> TIC	0.259	0.026	9.324	0.000	Supported

Based on Table 4 above, the R Square OC value is 0.673 which means that organizational culture (OC) variables can be explained by hard skills (HS) and soft skills (SS) variables by 67.3%, while the remaining 32.7% is explained by other variables not discussed in this study. Meanwhile, the R Squareteacher innovation capability (TIC) value of 0.737 means that the teacher innovation capability variable is able to explain the variables of hard skills, soft skills and organizational culture by 73.7%, while the remaining 26.3% is explained by other variables not discussed in this study . While Table 5 displays T Statistics and P-Values which show the influence between the research variables that have been mentioned.

Discussion

Based on the results of the study, it can be concluded that hard skills sharing has a positive and significant effect on teacher innovation capability. Both directly and through organizational culture mediation. This means that the more positive hard skills possessed by lecturers, the teacher innovation capability of individual lecturers at private universities will also increase. This finding is in line with research previous on business organizations, namely Perez-Luno et al (2018), Terhorst et al (2018), Boadu et al (2018), Che et al (2019). Likewise, soft skills have a positive and significant effect on teacher innovation capability, both directly and through organizational culture mediation. This means that the more positive soft skills possessed by teacher innovation lecturers. the capability of individual lecturers will also increase. That is, organizational culture becomes between soft skills of lecturers and teacher innovation capability.

The results of this study also concluded that hard skills and soft skills had a positive and significant effect on organizational culture. This means that the better hard skills and soft skills held by a lecturer, more positive the formation and development of organizational culture in private tertiary institutions. This is also in line with the conclusions of Oi & Chau (2018) research on business organizations. This suggests that the rarest and most valuable resources in the digital age are not ordinary lecturers and mediocre, but lecturers who can create new ideas and innovations (Xu, David & Kim, 2018). Lecturers who play a key role in producing and reusing their knowledge and intellectual property through education and teaching (Al-Kurdi, El-2018). For this Haddadeh&Eldabi. reason, the scarcity of lecturers who have sufficient hard skills and soft skills can paralyze the power of innovation, competitiveness, growth and flexibility of private tertiary institutions. No doubt, in the future, talents and responses of university lecturers in improving hard skills and soft skills will be an important factor in the future of the nation's education. College lecturers with skills and innovation will become capital luxury goods and an instrument of civilization.

Several studies have concluded that soft skills have more influence on innovation than hard skills Boerhannoeddin&Bakare. (Ibrahim. 2017: Albandea&Giret. 2018: Viviers. Fouche&Reitsma, 2016; Escrig-Tena et al, 2018). However, this study shows that hard skills have a greater influence on teacher innovation capability. The rational possibility is that research respondents are in big cities, namely in Jakarta, Bogor, Depok, Tangerang and Bekasi (Jabodetabek).

Based on the findings of this study, the facts conclude that organizational culture has a positive and significant effect on teacher innovation capability. Organizational culture also mediates the influence of hard skills and soft skills on teacher innovation capability. This is consistent with the conclusion of Martinez-Costa (2018). The study also concluded that private universities could manage past experiences to be combined with hard skills and soft skills possessed by the current dosens. In essence. organizational culture is able to provide positive conditions in the process of knowledge creation in the current education 4.0 era.

Conclusions and Recommendations

Conclusions

In order to add the role of soft skills as a predictor teacher innovation capability, universities need to provide autonomy and breadth to share knowledge with lecturers. Therefore, universities need to create organizational culture as a positive environment that drives the competence and engagement of individual lecturers in private universities. Indeed knowledge management will run effectively in private tertiary institutions if the individual performance of each dosage is in good condition (Manaf et al, 2017).

Researchers continue to learn about knowledge as an important college resource. It can be said that skills, both hard skills and soft skills, significantly improve can college performance. Organizational culture transforms individual knowledge into university knowledge. This study concludes that organizational culture acts as a process catalyst of knowledge creation among lecturers in tertiary institutions. Because in fact, it is the lecturers who carry obligation to prepare their students to study and work in this knowledge society.

Managerial Implications

Based on the conclusion of this study, the management of private tertiary institutions needs to build maximum involvement of all lecturers to continuously improve their hard skills and soft skills. Lecturer training in each section of the tertiary institution is a necessity with the level of intensity, content and context tailored to the key performance indicators of each lecturer. In essence, team learning behavior created in a tertiary environment will be a driving force for lecturer innovation (Widmann& Mulder, 2018).

The process of improving skills to build teacher innovation capability of private tertiary institutions should not only be limited to the internal processes of tertiary institutions. However, higher education management needs to expand the process of building this innovation through efforts to absorb, articulate. utilize and manage knowledge sourced from external college partners such as students' parents, governments, communities, and other educational institutions. Higher education management can activate learning from others when assigning lecturers to attend training, seminars, workshops, visits to other universities, meet with university committees and strategic partners. other Because external knowledge, such as those from trainers, coaches, parents of students, the government, the community, and other educational institutions, supports the teacher innovation capability of private tertiary institutions.

In addition, commitment to learning and seriousness to be involved in managing learning environment are things that need attention. Because private universities can become organizational culture when the entire community of private universities feel that they enjoy the learning process. Learning process becomes a university culture that encourages innovation (Asbari, Santoso & Purwanto, 2019). The key factors of organizational culture are trust, open communication, high involvement, industrial challenges, and creative work atmosphere. The task of university management is to facilitate the fulfillment of these key factors.

Research Limitations

This studv several has limitations. First, this study analyzes the effect of hard skills and soft skills on teacher innovation capability of lecturers, both directly and indirectly through organizational culture variables. Because there might be some other variables that affect teacher innovation capability, for example: knowledge management, leadership of higher education institutions, and others. The author strongly recommends finding, exploring and analyzing them. Secondly, this research is conducted in an Islamic private university environment and may not be generalized to other industries. Therefore it is highly recommended that further research be carried out on this topic in other industries.

References

1) Purwanto, A. Sulistiyadi, A. Primahendra, R. Kotamena, F. Prameswari, M.Ong, F. (2020).Does Ouality, Safety. Safety Environment and Food Management System Influence Business Performance? Answers from Indonesian Packaging Industries .International Journal of Control and Automation. 13(1). 22-35.

http://sersc.org/journals/index.php/IJ CA/article/view/4834

- Purwanto, A. ,Putri,R.S., ArmanHj. Ahmad ,Asbari,M ., Bernarto,I., Santoso,P.B, Sihite,O.B.(2020). The Effect of Implementation Integrated Management System ISO 9001, ISO 14001, ISO 22000 and ISO 45001 on Indonesian Food Industries Performance .<u>TEST Engineering & Management</u>. 82.14054 – 14069. <u>http://www.testmagzine.biz/index.p</u> <u>hp/testmagzine/article/view/3078</u>
- Hyun,C.C, Wijayanti,L.M., Asbari,M.,Purwanto,A.
 Santoso,P.B., IGAK Wardani, Bernarto,I., Pramono,R., (2020). Implementation of Contextual Teaching and Learning (CTL) to
- 4) Improve the Concept and Practice of Love for Faith-Learning Integration, International Journal of Control and Automation.13(1).365-383. <u>http://sersc.org/journals/index.php/IJ</u> <u>CA/article/view/5737</u>
- 5) MasdukiAsbari, LaksmiWijayanti, Choi Chi. Hyun, Agus Purwanto, Privono Budi Santoso **InnocentiusBernarto** Rudy Pramono , MiyvFayzhall. (2020). The Role of Knowledge Transfer and Organizational Learning toBuild Innovation Capability: Evidence Indonesian Automotive from Industry. International Journal of Control and Automation.13(1).19-322
- 6) InnocentiusBernarto, Diana Bachtiar, NikoSudibjo, Ian NurpatriaSuryawan, Agus Purwanto, MasdukiAsbari.(2020). Effect of Transformational Perceived Leadership, Organizational Support, Job Satisfaction Toward Life Satisfaction: Evidences from Indonesian Teachers. International

Journal of Advanced Science and Technology.29(3). 5495 -5503

- Asbari ,M.,Purwanto,A., Fayzhall,M., Winanti , Purnamasari ,D., Firdaus,A, .(2020).Hard Skills or Soft Skills: Which are More Important for Indonesian Teachers Innovation.
- 8) TEST Engineering &Management.83(2020). 2836 – 2854. <u>http://www.testmagzine.biz/index.p</u> <u>hp/testmagzine/article/view/4087</u>
- Asbari.M. Wijayanti,L.Hyun,C.C. 9) Santoso, P.B. (2020). Purwanto,A, How to Build Innovation Capability in the RAC Industry to Face Industrial Revolution 4.0?. International Journal of Psychosocial Rehabilitation. 24(6). 2008-2027. DOI: 10.37200/IJPR/V24I6/PR260192
- 10) Pramono, R. Kristianti, T., Purwanto,
 A. (2020). Character Development Training for Adults (A Case Study of Heartmaster Program in Jakarta). Test Engineering & Management.
 83. 5809 -581. http://www.testmagzine.biz/index.p hp/testmagzine/article/view/4556
- 11) Andika Putra Wijaya, InnocentiusBernarto. Agus Purwanto. (2020). How to Achieve Value Creation in Digital World? The Influence of IT Response on Creation and Customer Value Satisfaction. International Journal of Advanced Science and Technology, 29(3), 6705 - 6715. Retrieved from http://sersc.org/journals/index.php/IJ AST/article/view/7322
- 12) Ronald Susilo, InnocentiusBernarto, Agus Purwanto. (2020). Effect of Trust, Value and Atmosphere towards Patient Satisfaction (Case Study on Preama Clay of WaeLaku, Indonesia). International Journal of Advanced Science and Technology,

29(3), 6716 - 6723. Retrieved from http://sersc.org/journals/index.php/IJ AST/article/view/7324

- 13) MasdukiAsbari, InnocentiusBernarto .RudyPramono, Agus Purwanto, DylmoonHidayat, ArdianSopa, VirzaUtamaAlamsyah, Pierre Senjaya, MiyvFayzhall, Mustofa. (2020). The Effect of work-Family conflict on Job Satisfaction and Performance: A Study of Indonesian Female Employees . International Journal of Advanced Science and Technology, 29(3), 6724 - 6748. Retrieved from http://sersc.org/journals/index.php/IJ AST/article/view/7325
- 14) MirzaPrameswari, MasdukiAsbari, Agus Purwanto, Freddy Ong, SekundinaWillianaKusumaningsih, AnggaripeniMustikasiwi,

GusliChidir, Winanti, ArdianSopa. (2020). The Impacts of Leadership and Organizational Culture on Performance in Indonesian Public Health: The Mediating Effects of Innovative Work Behavior. International Journal of Control and Automation, 13(02), 216 - 227. Retrieved from http://sersc.org/journals/index.php/IJ CA/article/view/7630

15) HermasKornelius,

InnocentiusBernarto, Anton WachidinWidjaja, Agus Purwanto. Competitive (2020).Strategic Maneuverability: The Missing Link Between Strategic Planning and Firm's Performance. International Journal of Advanced Science and Technology, 29(3), 7413 - 7422. Retrieved from http://sersc.org/journals/index.php/IJ AST/article/view/7612

16) ArdianSopa, MasdukiAsbari, Agus Purwanto, Priyono Budi Santoso, Mustofa, DhanielHutagalung, SitiMaesaroh, MohamadRamdan, RizaPrimahendra. (2020).Hard Skills versus Soft Skills: Which are More Important for Indonesian Employees Innovation Capability. International Journal of Control and Automation, 13(02), 156 175. Retrieved from http://sersc.org/journals/index.php/IJ CA/article/view/7626

- 17) Otto Berman Sihite. Agus Hutagalung, Purwanto. Leo RosmaIndrianaPurba, AnggaripeniMustikasiwi, Juliana Liem. MasdukiAsbari. (2020).Interests and Obstacles to Publication of Articles in Reputable International Journals: Exploratory Studies of Doctoral Students at Private Universities in Jakarta. International Journal of Control and Automation, 13(02), 176 - 184. Retrieved from http://sersc.org/journals/index.php/IJ CA/article/view/7627
- 18) Privono Budi Santoso. MasdukiAsbari. Agus Purwanto, LaksmiMayestiWijayanti, Choi, Chi Hyun, SitiMaesaroh, MiyvFayzhall, GusliChidir. Mustofa. DhanielHutagalung, Ahmad Yani. (2020). Working While Studying at University in the Self-Management Perspective: An Ethnographic Study Java Ethnic on Employees. International Journal of Control and Automation, 13(02). 299 308. Retrieved from _ http://sersc.org/journals/index.php/IJ CA/article/view/8098
- 19) Rudy Pramono, YolentaWinda, Agus Purwanto, MirzaPrameswari, MasdukiAsbari, RosmaIndrianaPurba. (2020). Narrative Study: The Life of Influencers between Hobbies and Professions. International Journal of Advanced Science and Technology, 29(3), 8417 - 8438. Retrieved from

http://sersc.org/journals/index.php/IJ AST/article/view/9876

20) Purwanto, A. Sulistiyadi, A. Primahendra, R. Kotamena, F. Prameswari, M.Ong, F. Quality, (2020).Does Safety, Environment and Food Safety Management System Influence Performance? Business Answers from Indonesian Packaging Industries . International Journal of Control and Automation. 13(1). 22-35.

http://sersc.org/journals/index.php/IJ CA/article/view/4834

- 21) Purwanto, A. ,Putri,R.S., ArmanHj. Ahmad ,Asbari,M ., Bernarto,I., Santoso,P.B, Sihite,O.B.(2020). The Effect of Implementation Integrated Management System ISO 9001, ISO 14001, ISO 22000 and ISO 45001 on Indonesian Food Industries Performance . TEST Engineering & Management. 82.14054 – 14069. <u>http://www.testmagzine.biz/index.p</u> hp/testmagzine/article/view/3078
- Hyun,C.C, Wijayanti,L.M., Asbari,M.,Purwanto,A.
 Santoso,P.B., IGAK Wardani, Bernarto,I., Pramono,R., (2020).
 Implementation of Contextual Teaching and Learning (CTL) to
- 23) Improve the Concept and Practice of Love for Faith-Learning Integration, International Journal of Control and Automation.13(1).365-383. <u>http://sersc.org/journals/index.php/IJ</u> <u>CA/article/view/5737</u>
- 24) MasdukiAsbari , LaksmiWijayanti , Choi Chi. Hyun , Agus Purwanto , Priyono Budi Santoso , InnocentiusBernarto , Rudy

Pramono , MiyvFayzhall. (2020). The Role of Knowledge Transfer and Organizational Learning toBuild Innovation Capability: Evidence from Indonesian Automotive Industry. International Journal of Control and Automation.13(1).19-322

- 25) InnocentiusBernarto, Diana Bachtiar. NikoSudibjo, Ian NurpatriaSuryawan, Agus Purwanto, MasdukiAsbari.(2020). of Transformational Effect Leadership, Perceived Organizational Support, Job Satisfaction Toward Life Satisfaction: Evidences from Indonesian Teachers. International Journal of Advanced Science and Technology.29(3). 5495 -5503
- 26) Asbari ,M.,Purwanto,A., Fayzhall,M., Winanti , Purnamasari ,D., Firdaus,A, .(2020).Hard Skills or Soft Skills: Which are More Important for Indonesian Teachers Innovation.
- 27) TEST Engineering &Management.83(2020). 2836 – 2854. <u>http://www.testmagzine.biz/index.p</u> hp/testmagzine/article/view/4087

28) Asbari,M. Wijayanti,L.Hyun,C.C, Purwanto.A. Santoso, P.B. (2020). How to Build Innovation Capability in the RAC Industry to Face Industrial Revolution 4.0?. International Journal of Psychosocial Rehabilitation. 24(6). 2008-2027. DOI: 10.37200/IJPR/V24I6/PR260192

29) Pramono, R. Kristianti, T., Purwanto, A. (2020). Character Development Training for Adults (A Case Study of Heartmaster Program in Jakarta). Test Engineering & Management. 83. 5809 -581. http://www.testmagzine.biz/index.p hp/testmagzine/article/view/4556

- 30) Andika Putra Wijaya, InnocentiusBernarto. Agus Purwanto. (2020). How to Achieve Value Creation in Digital World? The Influence of IT Response on Creation and Value Customer Satisfaction. International Journal of Advanced Science and Technology, 29(3), 6705 - 6715. Retrieved from http://sersc.org/journals/index.php/IJ AST/article/view/7322
- 31) Ronald Susilo, InnocentiusBernarto, Agus Purwanto. (2020). Effect of Trust, Value and Atmosphere towards Patient Satisfaction (Case Study on Preama Clay of WaeLaku, Indonesia). International Journal of Advanced Science and Technology, 29(3), 6716 - 6723. Retrieved from <u>http://sersc.org/journals/index.php/IJ</u> <u>AST/article/view/7324</u>
- 32) MasdukiAsbari.InnocentiusBernarto ,RudyPramono, Agus Purwanto, DylmoonHidayat, ArdianSopa, VirzaUtamaAlamsyah, Pierre Senjaya, MiyvFayzhall, Mustofa. (2020). The Effect of work-Family conflict on Job Satisfaction and Performance: A Study of Indonesian Female Employees . International Journal of Advanced Science and Technology, 29(3), 6724 - 6748. Retrieved from http://sersc.org/journals/index.php/IJ AST/article/view/7325

33) MirzaPrameswari, MasdukiAsbari, Agus Purwanto, Freddy Ong, SekundinaWillianaKusumaningsih, AnggaripeniMustikasiwi,

GusliChidir, Winanti, ArdianSopa. (2020). The Impacts of Leadership and Organizational Culture on Performance in Indonesian Public Health: The Mediating Effects of Innovative Work Behavior. International Journal of Control and Automation, 13(02), 216 - 227. Retrieved from <u>http://sersc.org/journals/index.php/IJ</u> CA/article/view/7630

34) HermasKornelius,

InnocentiusBernarto, Anton WachidinWidjaja, Agus Purwanto. (2020). Competitive Strategic Maneuverability: The Missing Link Between Strategic Planning and Firm's Performance. International Journal of Advanced Science and Technology, 29(3), 7413 - 7422. Retrieved from http://sersc.org/journals/index.php/IJ <u>AST/article/view/7612</u>

- 35) ArdianSopa, MasdukiAsbari, Agus Purwanto, Priyono Budi Santoso, Mustofa. DhanielHutagalung, SitiMaesaroh. MohamadRamdan, RizaPrimahendra. (2020).Hard Skills versus Soft Skills: Which are More Important for Indonesian Employees Innovation Capability. International Journal of Control and Automation, 13(02), 156 - 175. Retrieved from http://sersc.org/journals/index.php/IJ CA/article/view/7626
- 36) Otto Berman Sihite, Agus Purwanto, Leo Hutagalung,

RosmaIndrianaPurba,

AnggaripeniMustikasiwi, Juliana MasdukiAsbari. Liem, (2020).Interests and Obstacles to Publication of Articles in Reputable International Journals: Exploratory Studies of Doctoral Students at Private Universities in Jakarta. International Journal of Control and Automation, 13(02), 176 - 184. Retrieved from http://sersc.org/journals/index.php/IJ CA/article/view/7627

37) Priyono Budi Santoso, MasdukiAsbari, Agus Purwanto, LaksmiMayestiWijayanti, Choi, Chi Hyun, SitiMaesaroh, MiyvFayzhall, GusliChidir, Mustofa, DhanielHutagalung, Ahmad Yani. (2020). Working While Studying at University in the Self-Management Perspective: An Ethnographic Study Ethnic on Java Employees. International Journal of Control and Automation, 13(02), 299 - 308. Retrieved from http://sersc.org/journals/index.php/IJ CA/article/view/8098