Annals of R.S.C.B., ISSN:1583-6258, Vol. 25, Issue 2, 2021, Pages. 4189 - 4203
Received 20 January 2021; Accepted 08 February 2021.

Effect of Organizational Culture on Innovation Capability Employees in the Knowledge Sharing Perspective: Evidence from Digital Industries

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ABSTRACT

This study aims to measure the influence of organizational culture on employee innovation capability in Indonesia mediated by tacit and explicit knowledge sharing. Data collection was carried out by simple random sampling via electronic to a population of employee in Digital Industries in Jabodetabek. The returned and valid questionnaire results were 200 samples. Data processing using SEM method with SmartPLS 3.0 software. The results of this study are organizational culturehas a positive and significant effect on employee innovation capability, both directly and through mediating tacit knowledge sharing. Organizational culture has a positive and significant effect on explicit knowledge sharing. While explicitknowledgesharing has not significant effect on t innovation capability.

Keywords: Revolution industry 4.0, *explicitknowledge, employee innovation capability, knowledge management, organizational culture, tacitknowledge*

INTRODUCTION

The Industrial Revolution 4.0 applies the concept of automation carried out by machines without the need for human labor in its application and is a vital thing needed by industry players for time, labor and cost efficiency. The implementation of the Industrial Revolution 4.0 in factories today is also known as the Smart Factory. Not only that, currently data retrieval or exchange can also be done on time when needed, via the internet network. So that the production and bookkeeping processes that run at the factory can be authorized by interested parties anytime and anywhere as long as they are connected to the internet. In line with the development of the Industrial Revolution 4.0, companies need workers with new skills, which may not have existed before. Some fields of work will experience opportunities to develop rapidly, while other fields of work may decline. In a survey conducted by the World Economic Forum (Future of Jobs Survey 2018) it is known that there are 4 technologies that will dominate in 2018-2022, namely: high -speed mobile internet, artificial intelligence, big data analytics, and cloud technology. It is believed that the four technologies will greatly influence the development of the company's business. Until 2022, based on the

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survey, 92% of companies in Indonesia will adopt the use of big data analytics as one of the main technologies. Likewise, a fairly large proportion will occur for the use of other technologies in the Industrial Revolution 4.0 such as the internet of things, machine learning, and cloud computing. Currently, there are five industrial backbones in carrying out the 4.0 industrial revolution in Indonesia, namely (1) food and beverage, (2) textiles, (3) automotive, (4) electronics, and (5) chemistry.

Innovation is an important aspect of quality education (Klaeijsen, Vermeulen, & Martens, 2017). Knowledge creation conditioned by organizational culture will trigger and spur employee innovation capability and organizational performance (Asbari, Purwanto&Santoso, 2019; Vijande& Sanchez, 2017) ; Lin & Lee, 2017). School innovation will be sustainable when it is based on a learning culture that adds value. This learning culture is what makes all teachers interact with each other so that their current knowledge and new knowledge acquired can be effectively transferred, exchanged and combined into school intelligence and knowledge (Lin & Lee, 2017; Lee et al, 2016; Chang &Lin. , 2015). An organizational environment that provides joy at work is an important factor in creating employee innovation capability of organizational members (Bani-Melhem, Zeffane&Albaity, 2018). Employee innovation capability is a driver of business sustainability. This performance depends on the knowledge culture that is embedded in the organization. Knowledge consisting of tacit and explicit knowledge. Many researchers discuss employee 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 aims to examine the effect of tacit and explicit knowledge sharing on employee innovation capability of employees in the company in order to welcome industrial revolution 4.0.

A good organizational culture will be more resilient to crises (Starbuck, 2017). Dimensions such as desire, discipline, decision making, and parity are presented as important elements of organizational learning (Wetzel & Tint, 2019; Urban &Gaffurini, 2018). Organizational culture is also an important performance indicator for evaluating overall organizational performance (Qi & Chau, 2018) which is able to help build the necessary knowledge resources and maintain company growth and continuity. Knowledge is classified into two types, including: tacit knowledge and explicit knowledge (Polanyi, 1966). Learning organization is one of the strategies for organizations to study environmental dynamics. business (Senge, 1990; Zhu et al, 2018; Kasim et al, 2018; Darwish et al, 2018). Schools with managed learning routines will produce a collection of knowledgeable individuals, both explicit knowledge and tacit knowledge (Hussain et al, 2018). Some researchers conclude that organizational learning is influenced by collaborative culture and knowledge sharing (Nugroho, 2018). Tacit knowledge was found to be a very significant predictor for the development of organizational learning (Muthuveloo, Shanmugam & Teoh, 2017).

METHOD

The method used in this research is quantitative method. The method for processing data is by using PLS and using the SmartPLS version 3.0 software as a tool. The population in this study were employees of digital industries. the number has not been identified with certainty. The questionnaire was distributed electronically with simple random sampling technique to all employee teachers. The results of the returned and valid questionnaires are 200 samples of respondents.

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Research Hypothesis

Based on the formulation of the problem, theoretical analysis, and the conceptual framework of the research hypothesis as follows:

H1: Organizational culture has a direct effect on employee innovation capability

H2: Organizational culture has a direct effect on tacit knowledge

H3: Organizational culture has a direct effect on explicit knowledge

H4: Tacit knowledge has a direct effect on employee innovation capability

H5: Explicit knowledge has a direct effect on employee innovation capability

H6: Organizational culture has an indirect effect on employee innovation capability through the mediation of tacit knowledge

H7: Organizational culture has an indirect effect on employee innovation capability through mediation of explicit knowledge

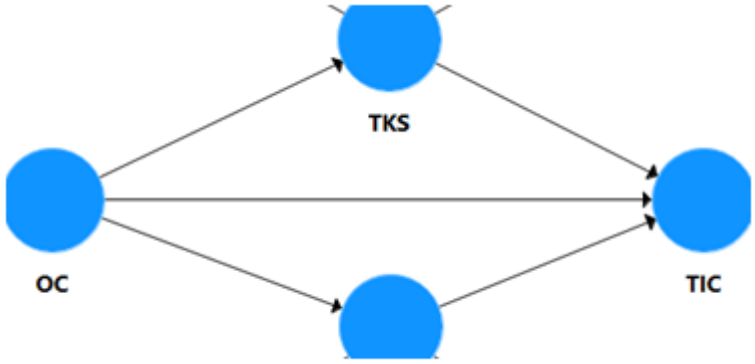

Fig. 1 Research Model

RESULT AND DISCUSSION

The testing phase of the measurement model includes testing for convergent validity, discriminant validity and composite reliability. The results of the PLS analysis can be used to test the research hypothesis if all indicators in the PLS model have met the requirements of convergent validity, discriminant validity and reliability testing. Convergent validity test is done by looking at the loading factor value of each indicator against the construct. In most references, a factor weight of 0.5 or more is considered to have sufficiently strong validation to explain latent constructs (Chin, 1998; Hair et al, 2010; Ghozali, 2014). In this study, the minimum limit for the accepted loading factor is 0.5, provided that the AVE value of each construct is> 0.5 (Ghozali, 2014).

Based on the estimation results of the PLS model, all indicators have a loading factor value above 0.5 so that the model has met the convergent validity requirements. Apart from looking at the loading factor value of each indicator, convergent validity was also assessed from the AVE value of each construct. The AVE value for each construct of this study is above 0.5. So the convergent validity of this research model has met the requirements. The value of loadings, cronbach's alpha, composite reliability and AVE for each complete construct can be seen in table 1 below:

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Table1. Items Loadings, Cronbach's Alpha, Composite Reliability, and Average Variance Extracted (AVE)

Varables	Items	Loadings	Cronbach's Alpha	Composite Reliability	AVE
Organizational Culture (OC)	OC1	0.699	0.785	0.854	0.539
	OC2	0.709			
	OC3	0.790			
	OC4	0.729			
	OC5	0.737			
TacitKnowledge Sharing (*TKS*)	TKS1	0.721	0.842	0.882	0.556
	TKS2	0.732			
	TKS3	0.726			
	TKS4	0.722			
	TKS5	0.782			
	TKS6	0.790			
ExplicitKnowledge Sharing (*EKS*)	EKS1	0.655	0.794	0.859	0.550
	EKS2	0.763			
	EKS3	0.713			
	EKS4	0.802			
	EKS5	0.765			
EmployeeInnovation Capability (TIC)	TIC1	0.697	0.846	0.891	0.621
	TIC2	0.759			
	TIC3	0.835			
	TIC4	0.820			
	TIC5	0.821			

Discriminant validity is done to ensure that each concept of each latent variable is different from other latent variables. The model has good discriminant validity if the AVE square value of each exogenous construct (the value on the diagonal) exceeds the correlation between this construct and other constructs (values below the diagonal) (Ghozali, 2014). The results of discriminant validity testing using the AVE square value, namely by looking at the Fornell-Larcker Criterion Value are obtained as follows:

Table2. Discriminant Validity

VARIABLES	EKS	OC	TIC	TKS
EKS	**0.741**			
OC	0.648	**0.734**		
TIC	0.363	0.513	**0.788**	
TKS	0.512	0.503	0.471	**0.746**

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

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

Hypothesis testing

Hypothesis testing in PLS is also known as the inner model test. This test includes a significance test for direct and indirect effects as well as a measurement of the magnitude of the influence of exogenous variables on endogenous variables. To determine the effect of tacit and explicit knowledge sharing on organizational culture and employee innovation capability, a direct effect test is needed. The direct effect test was carried out using the t-statistical test in the partial least squared (PLS) analysis model using the SmartPLS 3.0 software. With the boothstrapping technique, the R Square value and the significance test value are obtained as shown in the table below:

Tabel3. Nilai *R Square*

	R Square	R Square Adjusted
TKS	0.253	0.252
EKS	0.420	0.419
TIC	0.326	0.322

Tabel4. Hypotheses Testing

Hypotheses	Relationship	Beta	SE	T Statistics	P-Values	Decision
H1	OC->TIC	0.393	0.054	8.555	0.000	Supported
H2	OC ->TKS	0.503	0.049	11.644	0.000	Supported
H3	OC ->EKS	0.648	0.035	20.872	0.000	Supported
H4	TKS ->TIC	0.296	0.037	6.327	0.000	Supported
H5	EKS ->TIC	-0.043	0.047	0.794	0.427	Not Supported
H6	OC ->TKS ->TIC	0.149	0.030	5.542	0.000	Supported
H7	OC ->EKS ->TIC	-0.028	0.018	0.789	0.430	Not Supported

Based on Table 3 above, the value of R Square TKS is 0.253 which means that the variable tacit knowledge sharing (TKS) can be explained by the organizational culture (OC) variable of 25.3%, while the remaining 74.7% is explained by other variables not discussed in this study. . Meanwhile, the R Square value of explicit knowledge sharing (EKS) is 0.420 which means that the variable explicit knowledge sharing can be explained by 42.0% of organizational learning variables, while the remaining 58.0% is explained by other variables not discussed in this study. The R Square value of employee innovation capability (TIC) is 0.326, which means that the employee innovation capability variable can be explained by 32.6% of organizational learning variables, tacit knowledge sharing and explicit knowledge sharing, while the remaining 67.4% is explained by other variables not discussed in this

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study. . Meanwhile, Table 5 shows the T Statistics and P-Values which show the influence between the research variables that have been mentioned. This finding is in line with previous research on business organizations, namely Perez-Luno et al (2018), Terhorst et al (2018), Boadu et al (2018), Che et al (2019). In contrast to the above, explicit knowledge sharing does not have a significant effect on employee innovation capability, so that it is automatically incapable of being a mediator between organizational culture and employee innovation capability. In order to add the role of tacit and explicit knowledge sharing as predictors of employee innovation capability, schools need to provide autonomy and breadth to share knowledge with employees. Therefore, schools need to create organizational learning as a positive environment that spurs competence and individual engagement in the company. Indeed, knowledge management will run effectively in the company if individual performance is in good condition (Manaf et al, 2017).

CONCLUSION

Based on the research results, it can be concluded that organizational culture has a positive and significant effect on employee innovation capability. Either directly or through tacit knowledge sharing mediation. This means that the more positive organizational learning in schools, the more conducive employee innovation capability will be for individual teachers of school educational institutions. Strengthening employee innovation capability conditioned by tacit knowledge sharing. Researchers continue to learn about knowledge as an important corporate resource. It can be said that knowledge sharing, both tacit and explicit knowledge, can significantly improve company performance. Organizational culture converts individual knowledge into corporate knowledge.

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