



The Influence of Organizational Culture on Teacher Innovation Capability and Tacit Knowledge: A CB-SEM AMOS Analysis

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Abstract - This study aims to measure the influence of organizational culture on teacher innovation capability in Indonesia mediated by tacit knowledge. This research method is a quantitative survey. The data collection technique in this study used an online questionnaire technique which was designed using a Likert scale of 1 to 7 and distributed to 468 teachers selected by the simple random sampling method. This data processing tool uses Structural Equation Modeling (SEM) using AMOS (Analysis of Moment Structure) version 26. Before conducting data analysis, the validity and reliability of the questionnaire used is tested first. To measure its validity, the score of each question item is used which is correlated with the total item score in one variable. After testing the validity and reliability, then performed data analysis. Analysis and interpretation of data is carried out to answer the problems that have been formulated and answer the hypotheses. In this study, data analysis used Structural Equation Modeling (SEM) with AMOS software. The results of this study are organizational culture has a positive and significant effect on teacher innovation capability, Organizational culture has a positive and significant effect on explicit knowledge sharing. explicit knowledge sharing has positive and significant effect on teacher innovation capability.

Keywords: *teacher innovation capability, organizational culture, tacit knowledge*

Introduction

According to [Asbari et al. \(2020\)](#); [Lusiani et al. \(2020\)](#) The new challenges that are currently affecting education are the dramatic changes that have come from the digital era. This industrial revolution requires quality human resources that are more qualified, agile, adaptive and responsive to rapid changes. The world of education is facing such rapid economic, social, political and technological changes. Therefore, schools must be flexible to be able to adapt to changing situations and contexts. Schools and other educational institutions need an environment that continues to grow positively and is conducive to global human resource competition. Therefore, it is undeniable that schools need synergy between teachers and work environments that are capable of continuous improvement in innovation and performance. According to [Suwanto et al. \(2022\)](#); [Sumarsi et al. \(2019\)](#) The point is that in this knowledge economy era, a knowledge society emerges that requires innovation and flexibility as energy to survive competition. Therefore, the strategic development of educational institutions in the future is to increase knowledge resources, especially teachers, which open up spaces for innovation and growth. To ensure that educational institutions, especially schools, can be competitive and adaptive, teachers need to be directed and involved in pumping school performance. Teachers must be empowered and empowered. According to [Vizano et al. \(2020\)](#); [Waruwu et al. \(2020\)](#) schools must manifest into a true organizational culture. Organizational culture that empowers teachers as one of the main elements of school transformation, as well as teachers as instruments of civilization. The form of school as an organizational culture is very important for educational institutions that operate in environments with fast and unpredictable changes. So that the speed of response to changes is an absolute requirement to produce competitive human resources, students and win the global HR competition.

The individual knowledge of teachers and schools becomes intellectual capital which quickly becomes a new icon that describes the economic value of a school. This is a new paradigm adapted from the industrial revolution 4.0. According to [Lusiani et al. \(2020\)](#); [Nasiatin et al. \(2021\)](#); [Nugroho et al. \(2020\)](#)

Dependence on traditional productive assets such as buildings, structures, land and other tangible assets is no longer the main investment contribution for the future. Productive and sustainable assets in the future are intangible assets in the form of knowledge attached to teachers. This study seeks to understand the effect of the learning process and knowledge sharing (tacit and explicit knowledge) of teachers in Indonesia which is associated with an increase in their teacher innovation capability.

Method

This research method is a quantitative survey. The data collection technique in this study used an online questionnaire technique which was designed using a Likert scale of 1 to 7 and distributed to 468 teachers selected by the simple random sampling method. This data processing tool uses Structural Equation Modeling (SEM) using AMOS (Analysis of Moment Structure) version 26. Before conducting data analysis, the validity and reliability of the questionnaire used is tested first. To measure its validity, the score of each question item is used which is correlated with the total item score in one variable. After testing the validity and reliability, then performed data analysis. Analysis and interpretation of data is carried out to answer the problems that have been formulated and answer the hypotheses. In this study, data analysis used Structural Equation Modeling (SEM) with AMOS software.

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

H1: Organizational culture (A) has a direct effect on teacher innovation capability (Y)

H2: Organizational culture (A) has a direct effect on tacit knowledge (B)

H3: Tacit knowledge (B) has a direct effect on teacher innovation capability (Y)

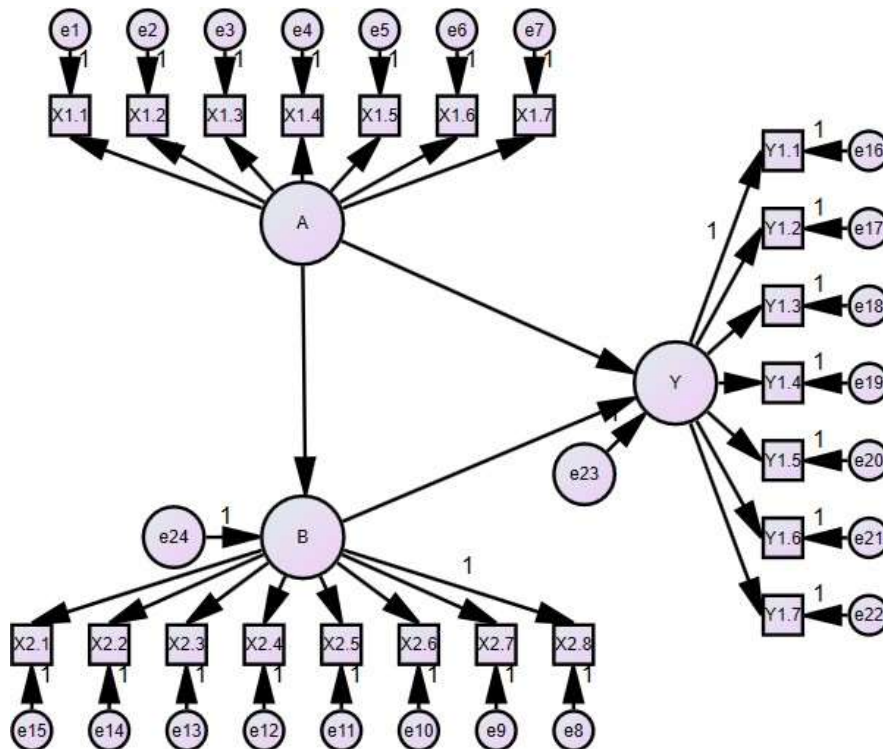


Fig 1. Research Model

Result and Discuccion

The research data from the questionnaires were run in the SEM-AMOS 26.0 program, the following are the results of the analysis:

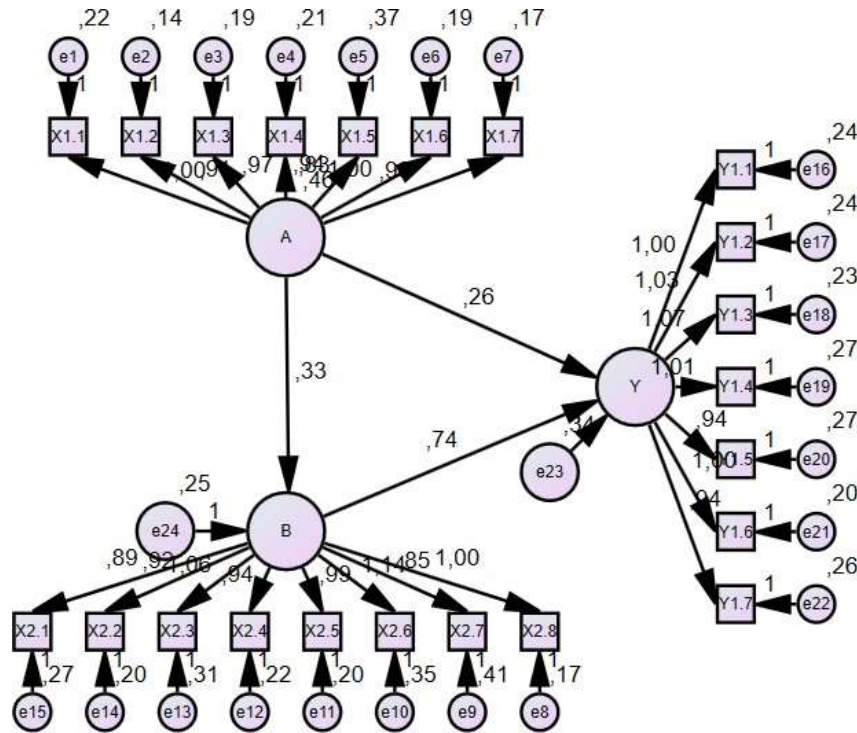


Fig 2. AMOS Result Analysis

The results of running data show the positive influence of each indicator on each endogenous variable. It is an obvious concern to support this research. This model is acceptable stating that the model is mutually acceptable, this can be agreed from the residuals and because prediction errors are allowed to enter the variable, the model is acceptable.

Table 1. Regression Weights: (Group number 1 - Default model)

		Estimate	S.E.	C.R.	P	Label
B	<--- A	,327	,088	3,718	***	
Y	<--- A	,263	,110	2,381	,017	
Y	<--- B	,741	,156	4,753	***	
X1.1	<--- A	1,000				
X1.2	<--- A	,905	,087	10,384	***	
X1.3	<--- A	,973	,098	9,932	***	



	Estimate	S.E.	C.R.	P	Label
X1.4 <--- A	,944	,099	9,550	***	
X1.5 <--- A	,828	,112	7,422	***	
X1.6 <--- A	,997	,099	10,085	***	
X1.7 <--- A	,964	,095	10,189	***	
X2.8 <--- B	1,000				
X2.7 <--- B	,852	,145	5,864	***	
X2.6 <--- B	1,137	,151	7,519	***	
X2.5 <--- B	,993	,121	8,197	***	
X2.4 <--- B	,941	,122	7,700	***	
X2.3 <--- B	1,060	,142	7,456	***	
X2.2 <--- B	,921	,118	7,802	***	
X2.1 <--- B	,894	,126	7,070	***	
Y1.1 <--- Y	1,000				
Y1.2 <--- Y	1,032	,096	10,735	***	
Y1.3 <--- Y	1,069	,097	11,046	***	
Y1.4 <--- Y	1,014	,098	10,355	***	
Y1.5 <--- Y	,940	,094	9,969	***	
Y1.6 <--- Y	1,004	,091	11,043	***	
Y1.7 <--- Y	,941	,093	10,066	***	

Table 2. Test results of testing the hypotheses of the survey Hypothesis

	Estimate	S.E.	C.R.	P	Label
B <--- A	,327	,088	3,718	***	
Y <--- A	,263	,110	2,381	,017	
Y <--- B	,741	,156	4,753	***	

Table 3 presents details of different measures for evaluating the goodness of the fit of the proposed study.

Goodness of fit index	Cut off Value	Model Result	Information result
2- Chi square	Expected to be small	698.234	deficient
Significance Probability	≥ 0.05	.312	ok
CMINDF	≤ 2.00	2.045	ok
GFI	≥ 0.90<1	.923	ok
AGFI	≥ 0.90<1	.914	ok
PGFI	≥ 0.05<1	.614	deficient
NFI	≥ 0.95<1	.9112	ok
RFI	≥ 0.95<1	.931	ok
IFI	approaching 1	.924	ok
TLI	≥ 0.95<1	.915	ok
CFI	≥ 0.95<1	.978	ok
PNFI	≥ 0.05<1	.065	ok
PCFI	≥ 0.05<1	.021	ok
NCP	χ ² - Chi square	363.142	ok
RMSEA	between 0.03-0.08	.073	ok
AIC. BCC. BIC.	≤ model independent =28.578	4.613	ok



CAIC.ECVI.MECVI			
Hoelter Critical N (1% and 5%)	≥ 200	217	ok

The results show the research model is acceptable because only two categories come out of desirable level

Organizational culture (A) and teacher innovation capability (Y)

Based on the results of AMOS calculations, it shows that **Organizational culture (A)** has a significant positive effect on teacher innovation capability (Y). This can be seen from the coefficients the path with a positive sign of 0.263 with a CR value of 2.381 and a significance probability (p) of 0.017 is obtained which is smaller than the specified significance level of 0.05. Thus, Organizational culture (A) has a significant effect in a positive direction on teacher **teacher innovation capability (Y)** which means that every time there is an increase in Organizational culture (A), it will increase teacher job satisfaction(Y). These results provide support for According to [Asbari et al. \(2020\)](#); [Lusiani et al. \(2020\)](#); [Nasiatin et al. \(2021\)](#); [Nugroho et al. \(2020\)](#); [Putra et al. \(2020\)](#) that Organizational culture (A) has a positive and significant effect on teacher innovation capability (Y)

Organizational culture (A) and tacit knowledge (B)

Based on the results of AMOS calculations, it shows that **Organizational culture (A)** has a significant positive effect on teacher tacit knowledge (B) This can be seen from the coefficients the path with a positive sign of 0.327 with a CR value of 3.718 and a significance probability (p) of 0.000 is obtained which is smaller than the specified significance level of 0.05. Thus, Organizational culture (A) has a significant effect in a positive direction on teacher **tacit knowledge (B)** which means that every time there is an increase in Organizational culture (A), it will increase tacit knowledge (B) These results provide support for According to [Waruwu et al. \(2020\)](#); [Fahmi et al. \(2019\)](#); [Suwanto et al. \(2022\)](#); [Sumarsi et al. \(2019\)](#) that Organizational culture (A) has a positive and significant effect on tacit knowledge (B)

Tacit knowledge (B) on teacher innovation capability (Y)

Based on the results of AMOS calculations, it shows that **Organizational culture (A)** has a significant positive effect on teacher teacher innovation capability (Y). This can be seen from the coefficients the path with a positive sign of 0.741 with a CR value of 4.753 and a significance probability (p) of 0.000 is obtained which is smaller than the specified significance level of 0.05. Thus, Organizational culture (A) has a significant effect in a positive direction on teacher **teacher innovation capability (Y)** which means that every time there is an increase in Organizational culture (A), it will increase teacher job satisfaction(Y). These results provide support for According to [Vizano et al. \(2020\)](#); [Waruwu et al. \(2020\)](#) that Organizational culture (A) has a positive and significant effect on teacher innovation capability (Y)

Based on the results of the study, it can be concluded that organizational culture has a positive and significant influence on teacher innovation capability. Either directly or through the mediation of tacit knowledge sharing. This means that the more positive the organizational culture that is in schools, the more conducive the teacher innovation capability of individual teachers of school education institutions will be. The strengthening of teacher innovation capability is conditioned by tacit knowledge sharing. This finding is in line with previous research According to [Purwanto et al. \(2019\)](#); [Vizano et al. \(2020\)](#) In contrast to the above, explicit knowledge sharing has no significant effect on teacher innovation capability, so it is automatically unable to become a mediator between organizational culture and teacher innovation capability. In order to add to the role of tacit and explicit knowledge sharing as predictors of teacher innovation capability, schools need to provide autonomy and breadth to share knowledge with teachers. Therefore, schools need to create an organizational culture as a positive environment that spurs the competence and engagement of individual teachers in school education institutions. According to [Asbari et al. \(2020\)](#); [Suwanto et al. \(2022\)](#); [Sumarsi et al. \(2019\)](#) knowledge management will work effectively in school education institutions if the individual performance of each teacher is in good condition. Researchers continue to study knowledge as an important school resource. It can be said that knowledge sharing, both tacit and explicit knowledge can significantly improve school performance.



Organizational culture transforms individual knowledge into school knowledge. This study concludes that organizational culture acts as a catalyst for the process of knowledge sharing among teachers in schools. This culture of knowledge sharing is crucial in the midst of the development of today's knowledge society. Because in truth, it is the teacher who has the obligation to prepare their students to learn and work in this knowledge society.

Conclusion

The results of this study are organizational culture has a positive and significant effect on teacher innovation capability, Organizational culture has a positive and significant effect on explicit knowledge sharing, explicit knowledge sharing has positive and significant effect on teacher innovation capability. The process of sharing knowledge to build teacher innovation capability in school education institutions should not only be limited to internal school processes. However, school management needs to expand the process of building this innovation through efforts to absorb, articulate, utilize and manage knowledge sourced from external school partners such as students' parents, government, communities and other educational institutions. School management can activate learning from others when assigning teachers to attend training, seminars, workshops, visits to other schools, meet with school committees and other strategic partners. Because external knowledge, such as that from trainers, coaches, parents, government, the community, and other educational institutions supports the teacher innovation capability of school education institutions. In addition, learning commitment and seriousness to be involved in managing the learning environment are things that need attention. Because school education institutions can become an organizational culture when the entire community of school education institutions feels they are enjoying this learning process. Learning process becomes a school culture that encourages innovation. The key factors of organizational culture are trust, open communication, high involvement, industry challenges, and a creative work atmosphere. The task of school management is to facilitate the fulfillment of these key factors. This research has several limitations. First, this study analyzes the effect of organizational culture on teacher innovation capability of teachers, both directly and indirectly through the mediation of tacit and tacit variables and explicit knowledge sharing. Because there may be several other variables that affect teacher innovation capability, the authors strongly recommend finding, exploring and analyzing them. Second, this research was conducted in a school education institution and may not be generalized to other industries. Therefore it is highly recommended to do further research on this topic in other industries.

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