Did Transformational, Transactional Leadership Style and Organizational Learning Influence Innovation Capabilities of School Teachers during Covid-19 Pandemic?

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ABSTRACT

This study aims to analyze and calculate the influence of transformational, transactional leadership and organizational learning on the innovation capabilities of teachers in Islamic schools in Jakarta during the COVID-19 pandemic. This research uses quantitative methods and data collection was carried out by simple random sampling electronically using an online questionnaire to the population of teachers in Islamic schools in Jakarta at the COVID-19 pandemic. The results of the questionnaire were returned and valid as many as 140 respondents. Data processing using SEM method with SmartPLS 3.0 software. The results of this study indicate that transformational leadership has a positive and significant effect on the innovation capabilities of teachers. Transactional leadership has a positive and significant effect on teachers' innovation abilities. The learning organization has a positive and significant effect on the innovation ability of teachers. Novelty of this new research proposes a model for building innovation capabilities among teachers through transformational and transactional leadership and organizational learning. This research can be used as a reference for future research and can be applied in other places.

Keywords: Organizational learning, teacher innovation capability, leadership. school teachers.

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INTRODUCTION

Indonesia's education system in the era of the Covid-19 pandemic has obstacles, in this pandemic era, from social restrictions due to the Covid-19 outbreak it can hinder achieving and strengthening the character of the Indonesian nation towards a superior generation, Indonesia must pay more to pay attention to the spirit of learning and teaching in field of education . Education is one of the central sectors that is feeling the impact of this outbreak. Until now, there are 156 countries in the world that have changed their education policies, from face-toface learning systems to distance learning systems. Indonesia also certainly does the same thing with other countries, namely changing the learning patterns of students from primary, secondary, to higher education by using distance learning. The new academic year has entered the world of Indonesian education. However, distance learning is a policy that continues to be implemented in the midst of the COVID-19 pandemic during the Covid-19 emergency, the implementation of remote learning is in accordance with this policy which contains 4 things, namely (1) independent learning which aims to provide a learning experience that is meaningful without being burdened with curriculum achievement for progress and class graduation; (2) students must be equipped with life skills regarding the Covid-19 pandemic; (3) the teacher gives various assignments by considering the differences in the abilities of each individual, and the learning facilities; and (4) providing feedback (feedback) on student performance must be qualitative. One of them is the impact that causes changes in teaching and learning methods in the classroom to become PJJ or Distance Learning. Where the teaching and learning process in the classroom by teachers and students turns into an online learning process. There are short-term to long-term effects of implementing distance learning. Short-term impacts include the vulnerability of students' psychological health conditions, limited information technology infrastructure, limited mastery of information technology by teachers and students, inadequate facilities

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and infrastructure (limited internet access), and insufficient budget provision. Meanwhile, the long-term impact is on the aspect of justice. There is a change in the physical distance policy from formal education to at home with an online system that makes teacher performance increase. Improving teacher performance must be taken during the Covid-19 pandemic, which can be realized by the existence of online-based applications, the values taken in this online-based system can increase student scores in being responsible, independent, working hard and honestly. The government implements policies such as Work from Home (WFH) to enforce students to finish everything at home, because in Indonesia this is one of the countries affected by Covid-19. The Ministry of Education issued a policy that replaces the Teaching and Learning Activities (KBM) process by using an online learning system. Thus, achieving teacher performance in an onlinebased system is not as easy as turning a hand. All efforts, both thought and energy, must be optimized in such a way. With this, students and teachers here can master various sophisticated technological systems, because teachers and students are required to have the ability in the field of technology in their learning system.

During the pandemic, many teachers, educators and lecturers innovated using media as an application in the learning process both face to face and interactive discussions, applications that are very commonly used are class wa groups which are always filled by teachers and students to assign assignments and also collect tasks, the role of whatssap groups are very popular in this pandemic era. Apart from using WhatsApp, there are also teachers who have used applications such as zoom meetings for virtual applications that can make us communicate face to face virtually from their respective homes, usually students will be happy when they can meet their friends through the application. which is commonly called a video. Online call which contains nearly 100 participants, there are also teachers who use two applications made by Google itself and can search Google for online media, namely Google Meet and Google Classroom, usually Google Meet is chosen for some teachers who want to communicate virtual via Google in addition to use zoom. and google clasroom can be used as a chat room for discussion. Education is an important role in shaping a better human being in the future and beneficial for human development and progress. This study aims to analyze and calculate the effects of transformational learning, transactional leadership, and organizational learning on the innovation capabilities of teachers in Jakarta during the COVID-19 pandemic.

LITERATURE REVIEW AND HYPOTHESIS

The style of transformative leadership in the study is the leadership of a leader who can change each teacher. Transformation leadership style indicators are as follows (Yukl, 2010): 1) The idealised influence, namely that evokes emotions and clear identity of leaders' followers. 2) The consideration of individuals requires offering supporters assistance, motivation and preparation. 3) An vision is created by inspirational encouragement with icons that reflect on the efforts of subjects. 4) Intellectual stimulation is an action that raises the consciousness of problems and influences supporters to take a different viewpoint on problems. The influence of transformational leadership on how leaders enhance shared partnership and confidence, collective selfimprovement and team learning (Yukl 2009), are also

described. "Transformation leadership is a leadership style that appeals to the moral ideals of supporters in an attempt to raise awareness of ethical problems and to harness their energies and resources in order to change institutions (Yukl, 2009). Other and creates relationships which boost leaders and followers' motivation and morality (Burn, 2013).

Leadership Style

In various aspects of the leadership actions the transactional management process can be demonstrated (Yukl 2010): I Relevant awards (contingentreward), including clarification of employment to gain awards as well as of rewards and awards for their encouragement. 2) Exception Management-Proactive for detecting mistakes and applying error prevention laws. 3) Extraordinary management enthusiasm calls for the use of relevant fines and other measures to address gaps in the accepted standards of efficiency. Transitional leadership by clarifying roles and jobs criteria is defining by the Robbins and Judge as a leadership that guides or pushes supporters to achieve goals (Robbins and Judge, 2011). It cannot vary Burns's (1978) principle of transactional management that motivates its adherents by calling on their adherents' personal interests (Yukl 2010). (Yukl, 2007). Yukl said that transactional leadership needs a framework for trade that can commit to mission objectives vigorously (Yukl, 2010). Transactional leadership is a leadership style that focuses on the interpersonal transactions that create an impact on exchange between managers and educators.

Teachers Innovation Capability

Innovation potential is recognised as one of the key internal tools that can contribute to higher performance at schools (Zouaghi et al, 2018; Santoro et al, 2017; Castela et al, 2018). A significant element of quality education is creativity (Klaeijsen, Vermeulen & Martens 2017). The new industry era 4,0 needs the opportunity to innovate teachers as an advantage to the competitive role of colleges, (Culot, Orzes & Sartor, 2019), competitive strategy, and the secret to confronting industry age 4,0 (Stachova et coll., 2019) are part of the standard of management in the 21st century (Gunasekaran, Sabramanian & Ngai, 2019), with many advantages for the industrial age of 4,0 (Gunasekaran, Sabre and others).

Organizational Learning

The ability to access information is a distinction between schools. In terms of the broad knowledge base of any person within an institution of school education, the performance of the school education institution's strategies is very significant. Good organisational learning would be more crisis-resilient (Starbuck, 2017). As core elements of institutions of learning (Wetzel and Tint, 2019; Urban & Gaffurini, 2018), dimensions such as desire, discipline, decisions and equity are described. Organizational learning is also an important measure of success in the evaluation of overall organisational performance (Qi & Chau, 2018) in order to develop the requisite knowledge and sustain school growth and continuity.

The Influence of Transformational and Transactional Leadership on Teacher Innovation Capability

Previous researchers have demonstrated a positive and important impact on teacher creativity capacity through transformation and transaction leadership (Ganguly et al, 2019; Aulawi, 2018; Li et al, 2019). In particular, several researchers agree that a positive and important impact on teacher creativity capacity is transformational leadership

(Pérez-Luno, et al, 2018). They are all protected by the educational institutions. Capacity to innovate in teachers is a catalyst of sustainable education. This success depends on the culture of information embedded in the institution. Many scholars address the capacity of teachers to innovate, leading them (Samsir, 2018; Schukert et al, 2018; Villialuz&Hechanova, 2013) to exchange information and to share knowledge (Kim & Shim, 2018; Wang, Chen & Chang, 2019), collaborative culture (Yang, Nguyen & Le, 2018) and method (Immagination method) *H1: Transformational leadership has a significant effect on teacher innovation capability*

H2: Transactional leadership has a significant effect on teacher innovation capability

The Influence of Organizational Learning on Teacher Innovation Capability

This culture of learning helps all teachers to collaborate, share and connect their current knowledge and knowledge to school intelligence and knowledge in an effective manner (Lin & Lee, 2017; Lee et al , 2016; Chang & Lin., 2015). A fun-filled institutional atmosphere is essential to the growth of the capacity of teacher creativity for institutional members (Bani-Melhem, Zeffane&Albaity 2018). The development of knowledge conditioned by corporate learning is designed to promote creativity and institutional success in teaching capacities and institutions (Asbari, Purwanto & Santoso 2019; Vijande & Sanchez 2017; Lin & Lee, 2017). When based on a learning culture that adds value, school creativity would be sustainable. In

addition, the following theories must be checked based on the above literature:

H3: Organizational learning has a significant effect on teacher innovation capability

METHOD

The method employed is a quantitative method. Data have been obtained by distributing online electronic questionnaires to all Islamic schoolteachers in Jakarta, Indonesia. Bass & Avolio (2000) has adapted the instrument used to calculate transformational leadership with 5 components. Bass & Avolio (2000) has also adapted transactional leadership with 4 products. organisational learning of the Jiménez-Jiménez-Sanz-Valle (2011) adaptable instrument is calculated using five components. Lee & Choi (2003) adapted teacher creativity capacity with five different products. The questionnaire is closed except in the form of semi-open questionnaire for questions / declarations about the identity of the respondent. Five answers are given to each closed question / statement item: strongly agree (SS) Score 5, Score 4, Distinguish (KS) Score 3, Score 2 (Disagreement) and Score 1. The processing method is by PLS and by means of the programme SmartPLS version 3.0. In this study the population was Islamic schoolteachers in Jakarta and questions were electronically transmitted using simple random samples. 130 respondents were presented with the results of the questionnaire.

Table 1. Profil of respondents

Criter	Total	
Age	< 30 years	45
	30 - 40 years	55
	> 40 years	40
Working period as teacher	< 5 years	35
	5-10 years	55
	> 10 years	50
Education	< S1 (bachelor's degree)	75
	≥ S1 (bachelor's degree)	65

For respondents who were under 30 years old were 45 teachers, respondents aged 30-40 years were 55 teachers and respondents aged over 40 years were 40 teachers. There were 35 respondents for Working period as teacher under 5 years, 55 respondents for working period as

teacher for 5 - 10 years, and 50 teachers for Working period as teacher over 10 years. For respondents with education levels below the bachelor's degree, there were 75 teachers, and respondents with education levels above the bachelor's degree were 65 teachers.

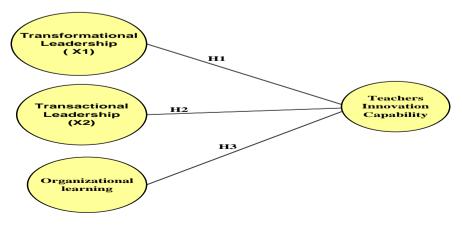


Fig. 1 Research Framework

Based on previous research literature studies, the following hypothesis is obtained

H1: Transformational leadership has a significant effect on teacher innovation capability

H2: Transactional leadership has a significant effect on teacher innovation capability

H3: Organizational learning has a significant effect on teacher innovation capability

RESULTS AND DISCUSSION

Testing of the Validity and Reliability of each Indicator Included in this testing process are convergent checks, disc validity and composite reliability. The results of the

PLS study can be used to test the research hypothesis if the convergent validity, discriminant validity and reliability test criteria have been met with all the indicators in the PLS model.

1. Convergent Validity Testing indicators

Convergent validity test is done by looking at the loading factor value of each indicator against the Create. The reference showed that factor weights of 0.5 or more had adequate validation to justify latent structures (Chin, 1998; Hair et al, 2010; Ghozali, 2014). In this analysis, the minimum factor value accepted is 0.5, provided every construct has an AVE value of > 0.5 (Ghozali, 2014).

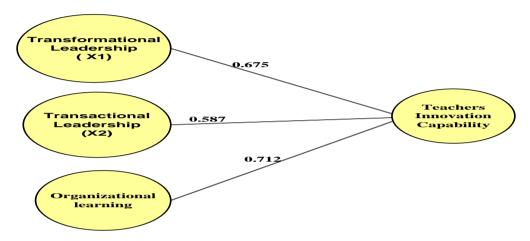


Fig 2. Estimation valid model

Based on the estimate results of the PLS model above, all indicators are paid above a value of 0.5 for a convergent validity of the model. The convergent validity of each building has also been evaluated based on the AVE value. Every structure in this study had an AVE value of above

0.5. The convergent validity of this research model has therefore fulfilled the requirements. Table 2 below shows the importance of loadings, cronbach alpha, composite reliability and AVE for each complete construction:

Variables	Items	Loadings	Cronbach's Alpha	Composite Reliability	AVE
Transformational	X11	0.653	0.763	0.812	0.763
(X1)	X12	0.678			
	X13	0.765			
Transactional	X21	0.631	0.675	0.743	0.764
(X2)	X22	0.612			
	X33	0.723			
Organizational Learning	X31	0.764	0.875	0.874	0.785
(X3)	X32	0.992			
	X33	0.812			
Teachers' Innovation	Y1	0.771	0.789	0.875	0.932
Capability	Y2	0.653			
(Y)	Y3	0.761			

Construction Reliability Testing

The building reliability and the compositional reliability of each building can be measured from the Cronbach alpha value. The suggested alpha value is more than 0.7 for composite reliability and cronbach. Table 2 shows that any building has a composite reliability value and Cronbach's alpha is greater than 0,7 (> 0,7) due to the reliability test in the table 2. Finally, all buildings have achieved the durability necessary.

Testing of the validity of discriminant variables

Discriminatory validity checks are conducted to ensure that each latent variable definition varies from other latent variables. A model of highly discriminating value exceeding the relationship between this building and other constructions (values beyond the ring) is the AVE sq.o. value of each exogenous building (the diagonal value). (Ghozali 2014). The results of discriminatory tests for validity with the AVE square value are obtained as follows, in particular by looking at the Fornell-Larcker criterion value:

Table 3. Discriminant Validity

Variables	X1	X2	Х3	Y
X1	0.875			
X2	0.723	0.871		
Х3	0.731	0.715	0.980	
Y	0.731	0.797	0.891	0.921

The results of the discriminating validity test in Table 3 above show that all constructs are above the correlation value of AVE with other latin constructs, so that it is possible to assume that the model has fulfilled the discriminating validity.

Table 4.R Square Value

	R Square	R Square Adjusted
Teachers' Innovation Capability (Y)	0.888	0.761

Table 4 above shows R Square value of 0.888; that is to say, the variable for teacher creativity (Y) can be explanations by 88.8 percent for transition leadership (X1), transactional management (X2) and organisational learning variables, while other variables that are not addressed in this study explain the remaining 11.2 percent.

Hypothesis Testing

Testing of hypotheses in this PLS involves the evaluation of the importance of direct and indirect effects, and the calculation of the impact of endogenous variables. A direct effect test is required in order to assess the effects of transactional leadership, transactional leadership and

organisational learning on teacher creativity. The direct research with the SmartPLS 3.0 programme was performed using the t-statistic test in the partial less squared analysis (PLS). As shown in table 5 below, the stand striking technique results in the R Square value and the value of the sense test:

Table 5. Hypothesis Testing Result

Hypothesis	Relationship	Beta	SE	T Statistics	P-Values	Decision
H1	X1 -> Y	0.321	0.042	2.651	0.000	Supported
H2	X2 -> Y	0.367	0.034	2.653	0.001	Supported
Н3	X3 -> Y	0.317	0.021	3.871	0.002	Supported

H1: Transformational leadership has a significant effect on teacher innovation capability

On the base of the hypothesis test results, the value beta of 0.321, SE 0.042, T Statistics 2.651 and P-Values 0.000 are found to have a positive and important impact on the capacity to innovate teachers. These findings are consistent with Asbari research (2019), that transformation leadership has a positive and important impact on the capacity to innovate teachers, that transformation leadership Santoso (2019) has a positive and significant impact on teacher innovation capacity, and that transformation leadership Wijayanti (2019) has a positive and significant effect on teacher innovation ability and transformation and Transformational leadership (2019) has a positive and substantial impact on teacher innovation and Hyun (2020) has a positive and significant impact on teacher innovation capabilities. transformation leadership Transformational leadership Transformative leadership in Pramono (2019) has a positive and significant impact on creativity capabilities in teaching, and Hyun (2020) has a positive and substantial effect on teacher creativity. Purwanto (2020) Transformative leadership has a clear and optimistic effect on teacher

H2: Transactional leadership has a significant effect on teacher innovation capability

Based on the hypothesis test results, a Beta value of 0.367, SE 0.034, T Statistics 2.653 and P-Values 0.001 were found to be positive and important in the effects of transitional leadership in educational innovation. These results are consistent with the findings of Asbari (2020) on the positive and significant impact of transactional leadership on the capability to teach creativity, the positive and significant impact of transactional leadership on the capability of teachers to innovate and the positive and significant effect on teacher capacity in transaction leadership, Wijayanti (2020). Transactional lead Pramono (2020) has a positive and significant impact on teacher innovation capabilities, while Hyun (2020) has a positive and significant impact on teacher innovation capabilities in change leadership. Transactional management Bernarto (2019) has a positive and important impact on teacher innovation ability. Transactional Purwanto (2020) has a positive and important impact on teacher innovation potential

H3: Organizational learning has a significant effect on teacher innovation capability

Based on the test results of the hypothesis, beta was seen as 0.317, SE 0.021, T statistics 3.871 and P-values 0.001 to demonstrate the optimistic and important influence of organisational learning in teacher creativity. These findings are consistent with research undertaken by

Asbari (2020), according to which organizative learning has a positive and substantial effect on teachers' innovation, Purwanto (2020), organisational learning has a positive and significant impact on teachers' innovation capacities. Bernarto (2020) has a positive and significant impact on teacher innovation and Pramono (2019) has positive and significant impact on teacher innovation capabilities in the sense of organisation learning. Purwanto(2019) notes that the optimistic and important influence of organisational learning on teachers' capacity for innovation.

Based on the research results it is possible to conclude positive and important impacts of transformational leadership are on the teacher's innovation potential, so that the more positive transformative leadership belongs to school leaders, the more individual teacher innovation capacity would increase in schools. The findings are consistent with previous studies: Perez-Luno et al. (2018), Terhorst et al. (2018), Boadu et al. (2018), Che et al. (2019) and others. Transactional leadership has an impact on the willingness of teachers to innovate, which results in an increase of the individual teachers' innovation capability in education by the more optimistic transactional leaders. Organizational preparation has a positive and important effect on the ability to innovate teachers, which means that the more positive the organisational training belongs to school administrators, the greater the potential of individual teachers to innovate in schools.

CONCLUSION

Based on the results of the study, a positive and important effect of transformation leadership on the capacities of teachers to innovate means that the more positive transformation leaders are, the more the capacity of individual teachers to innovate in Islamic schools will increase. The stronger the teacher innovation capacity will expand. The positive and important implications for teacher innovation capacity are transactional leadership, which means that the more positive transactional leadership of teachers is, the greater the individual teacher innovation potential in Islamic schools. Organizational learning has a positive and important effect on Teacher innovation ability, which means that the more positive organisational learning belongs to the leaders of schools, the greater the individual teacher innovation ability of teachers in Islamic schools would be enhanced. Schools also have to build an organisational learning atmosphere that encourages the expertise and participation of individual teachers in schools. Leadership continues to be an important school resort for researchers. Leadership, disruptive and transaction leadership, will greatly boost teachers' creativity capabilities. Organizational learning accelerates knowledge into knowledge in classrooms. This study concludes that organisational learning serves as a mechanism for the the ability of school educators to innovate. There are various drawbacks to this report. In the first position, this research analyses the impact on the creativity capacities of teachers through transformational and transactional leadership. There may be, of course, several other variables that influence teacher creativity, the author suggests that this be found, investigated and evaluated. Second, studies carried out in other schools cannot be prevalent in other schools. Further study on this subject in other schools is also strongly recommended.

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