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INFLUENCE SOFT SKILLS, HARD SKILLS AND ORGANIZATION LEARNING ON TEACHERS' PERFORMANCE THROUGH INOVATION CAPABILITY AS MEDIATOR

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ABSTRACT: The purpose of this research is to measure the effect of hard skills, soft skills and organizational learning towards teachers' performance in Jakarta, Bogor, Depok, Tangerang and Bekasi (Jabodetabek) which was mediated by teachers' innovation capability. Data collected by simple random sampling via electronic to the teacher population in Jabodetabek. The returned and valid questionnaire results were 327 samples. Data processing was used SEM method with SmartPLS 4 software. The results of this research concluded that hard skills, soft skills and organizational learning have a positive and significant effect on the teachers' innovation capability. Only soft skills sharing has a positive and significant effect on the teachers' performance. Teachers' innovation capability mediated relationship between soft skills, organizational learning and teachers' performance. This research proposed a model for building teachers' performance among teachers in Jabodetabek through enhancing hard skills, soft skills and organizational learning with the teachers' innovation capability as a mediator. This research can pave the way to improve teachers' readiness in facing the education era 4.0.

KEYWORDS: Hard skills, organizational learning, performance, soft skills, teachers' innovation capability

I. INTRODUCTION

Rapid and fundamental changes that come from industrial revolution 4.0 become a new challenge for education. This industrial revolution requires qualified, agile, adaptive and responsive human resources against a rapid change. The world of education is facing rapid economic, social, political and technological change. Therefore, schools must be flexible to be able to adapt of the changing situations and contexts. Schools and other educational institutions need an environment that continues to grow positive and conducive in global human resource competition. Therefore, it cannot be denied that schools need synergy between teachers and the work environment that are able to make continuous improvements in innovation and performance. The point is that, in this era of knowledge economy emerges the knowledge societies that need innovation and flexibility as energy to survive of a competition. Therefore, the strategic development of educational institutions in the future is to increase knowledge resources, especially teachers, which provide space for innovation and growth [1].

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 powered and empowered. As a result, schools must manifest into real organizational learning. Organizational learning that empowers teachers as one of the main elements of school transformation, as well as teachers as instruments of civilization. The form of schools as the organizational learning is very important for educational institutions that operate in the environments with rapid and unexpected changes. So that, the speed of response to change, becomes an absolute requirement to create human resources, students who are competitive and win global human resources competition[2].

The knowledge of individual teachers and schools becomes intellectual capital which quickly becomes a new icon that illustrates the economic value of a school. This is the new paradigm adapted from industrial revolution 4.0. A dependence on traditional productive assets such as buildings, constructions, land and other tangible assets are no longer a major investment contribution in the future. Productive and sustainable assets in the future are intangible assets in the form of knowledge that inherent on the teacher. This research seeks to understand

and explain the effect of teachers' hard skills and soft skills on their 'teachers' innovation capability', then, to measure the effect of the organizational learning mediation on the relationship between hard skills, soft skills and teachers' innovation in Indonesia[3].

II. LITERATURE REVIEW AND HYPOTHESES

Hard Skills

Hard skills are one type of knowledge that is easily documented and formed [4],[5],[6],[7], easily articulated (Haamann & Basten, 2018) and usually constitute knowledge that inherent in schools (Afsar, Masood & Umrani, 2019). In addition, hard skills can be created, written and transferred between school activity units (Lombardi, 2019). The transfer of hard skills among teachers is easier to be encouraged by a conducive school mechanisms and culture.

Hard skills can be described in general and are also based on the specific context in which these skills are used. [8] defines hard skills as skills that related to technical aspects for carrying out several tasks at work. Therefore, hard skills are basically cognitive and are affected by intellectual quotient IQ[8],[9],[10],[11]Contextually, some researchers use the concept of hard skills in particular the state of management. [12] generally refers to hard skills in the context of project management as processes, procedures, tools, and techniques [13][14][15].

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 intelligence quotient thinking that has indicators for calculating, analyzing, designing, broad insights and knowledge, modeling and critical. Hard skills are related to mastery of science, technology and technical skills related to the part of knowledge. A teacher must have skills in opening lessons, managing classes, designing group discussions, arranging rooms, and writing well [16]Hard skills are relatively easy skills to measure. Widoyoko distinguishes between two hard skills, namely their academic and vocational skills. Academic skills are the ability to master various concepts in the field of research, 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 [17]

Soft Skills

Knowledge is classified into two types including: soft skills and hard skills [18]The definition of soft skills is knowledge that is still in the human mind and is very personal [19], it is difficult to be formulated and divided naturally [20]so that the transformation requires personal interaction [21]. These soft skills are rooted in one's actions and experiences, including idealism, values, and emotionality [22],[23],[24]

Based on its understanding, soft skills are categorized as personal knowledge or in other words knowledge obtained from individuals or personal [25],[26]The experience gained by each teacher is certainly different based on situations and conditions that cannot be predicted. Soft skills are not easily articulated and converted into hard skills [27],[28],[29],[30],[31],[32]

Every school educational institution must utilize the teacher's soft skills by encouraging them to share knowledge and keep learning. School educational institutions like this will become more creative, innovative and lead in the era of education 4.0. Schools can facilitate the management and use of tacit knowledge that is outside the awareness stored in the subconscious mind of each teacher with an embedding and sharing approach [33],[34],[35],[36],[37],[38]

Organizational Learning

Good organizational learning will be more resilient to crises [33], [34],Dimensions such as desire, discipline, decision making, and alignment are presented as important elements of the organizational learning [35], [36],The organizational learning is also an important performance indicator to evaluate overall organizational performance which is able to help build the necessary knowledge resources and maintain school growth and continuity. The ability to access knowledge is a distinguishing factor between one school and another. The success of the strategy of school education institutions is very significant related to the solid knowledge base that is owned by every individual of the school education institution.

Teachers' Innovation Capability

Industrial era 4.0 currently requires teachers' innovation capability as a competitive advantage in schools. Innovation capability is recognized as one of the most important internal resources that can produce superior school educational institution performance [37],[38].

Performance

[39],[40] individual performance refers to a set of individual actions and behaviors that are relevant to their organizational goals. One of the simplest definitions of individual performance is "the extent to which work is done well". Employee performance appraisal is important, not only to ensure better school management, but also to facilitate services to the development of science. Thus, good individual performance means the teacher has completed work related responsibilities to the satisfactory extent or to the extent expected by school management.

The effect of Hard Skills, Soft Skills and Organizational Learning towards Teachers' Innovation Capability and Performance

In the current industry 4.0 eras, which is marked by increasingly fierce competition, sustainability remains an important concern and issue. Teachers' innovation capability is driving business sustainability. This performance depends on the culture of knowledge contained in the organization. Knowledge consists of tacit and hard skills. Many researchers discuss teachers' innovation capability which concludes that innovation is effected by leadership [42],[43],employee involvement climate [44],[45]knowledge sharing . This research, would like to examine the effect of hard skills and soft skills on teachers' innovation capability of teachers in school educational institutions in the context of welcoming industrial revolution 4.0. Previous researchers have proven the positive and significant effect of hard skills and soft skills on teachers' innovation capability [46],[47].

[48]explains that knowledge management is a discipline that treats intellectual capital from managed 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, not physical assets. In general, knowledge management carried out by the organizational learning is a technique or way to manage knowledge in organizations to create value and increase competitive advantage. The organizational learning as a mediation variable plays a role between hard skills, soft skills and the organizational innovation. In addition, this process has been considered as a system where knowledge and skills are input, the organizational learning is the main process, and the organizational innovation is an important output [49],[50].

The effect of Teachers' Innovation Capability towards Teachers' Performance

Organizations need to increase their flexibility, responsiveness, and efficiency, and innovation to respond challenges that faced in local and global competition [50],[51]. This is due to the rapidly increasing need for innovative product and service capabilities as well as internal processes and behavior of all members on the organization. In addressing this issue, previous researches emerged that have explored shifting from an efficiency view to innovation. The need for more knowledge about how individuals can be coordinated is to improve innovation and performance at the organizational level [52],[53].In addition, [54],[55] argues that internal processes should create innovations which contribute to improve performance. While [56] show that employee innovation indirectly affects the value of the organization through its effect on market and financial position. Nevertheless, according to Sopa et al. (2020) mention that innovation is very important for improving teachers' performance and they show that schools which focus on teachers' innovation will be more productive and competitive in the global education market.

Based on the above literature, design of research model at Figure 1 and the hypotheses to be examined are as follows:

- H¹: *Hard skills* directly effect towards *teachers' innovation capability*
- H²: *Soft skills* directly effect towards *teachers' innovation capability*
- H³: *Organizational learning* directly effect towards *teachers' innovation capability*
- H⁴: *Hard skills* directly effect towards *teachers' performance*
- H⁵: *Soft skills* directly effect towards *teachers' performance*
- H⁶: *Organizational learning* directly effect towards *teachers' performance*

H⁷: Teachers' innovation capability directly effect towards teachers' performance

H⁸: Hard skills indirectly effect towards teachers' performance through the teachers' innovation capability mediation

H⁹: Soft skills indirectly effect towards teachers' performance through the teachers' innovation capability mediation

H¹⁰: Organizational learning indirectly effect towards teachers' performance through the teachers' innovation capability mediation

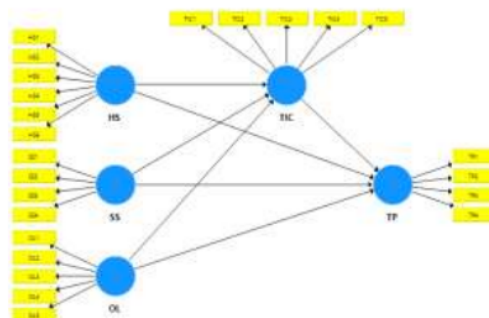


Figure 1. Research Model

III. METHODS

Definition of Operational Variables dan Indicators

The method used in this research is quantitative method. Data was collected by distributing questionnaires to all teachers of school education institutions. The instrument used to measure hard skills was adapted from [57],[58] using six items. Soft skills were also adapted from [59],[60],using four items. The organizational learning is measured from instruments adapted from using five items. Teachers' innovation capability was adapted from using five items. Teachers' performance was adapted using four items. The questionnaire was designed closed except for questions / statements about the identity of respondents in the form of a semi-open questionnaire. Each closed question / statement item is given five answer options, namely: strongly agree (SS) score 5, agree (S) score 4, less agree (KS) score 3, disagree (TS) score 2, and strongly disagree (STS) score 1. The method for processing data was by PLS and using SmartPLS software version 3.0 as a tool.

Population and Sample

The population in this research are school teachers in Jakarta, Bogor, Depok, Tangerang and Bekasi (Jabodetabek) 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 342 and valid were 327 samples. So 95.61% is valid from the number of questionnaires collected.

IV.RESULTS AND DISCUSSION

Description of Sample

Tabel 1. Information descriptive of the sample

Criteria		Total	%
Age (per October 2019)	< 30 years	86	26.4%
	30 - 40 years	133	40.6%
	> 40 years	108	33.0%
Teachers' Status	Public (ASN)	111	34.1%
	Private (Swasta)	216	65.9%
Service period as teacher	< 5 years	117	35.7%
	5-10 years	146	44.5%

	> 10 years	64	19.8%
Highest education	< S1(bachelor degree)	29	9.0%
	≥ S1 (bachelor degree)	298	91.0%

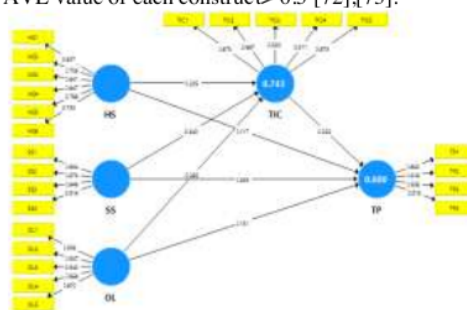
Validity and Reability Test Result of Research Indicator

8

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

1. Convergent Validity Test

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 [70],[71]In this research the minimum limit on the size of the loading factor received was 0.5, with the requirement that the AVE value of each construct> 0.5 [72],[73].



Gambar 2. Estimation valid model

Based on the estimation results of the PLS model in the picture above, all indicators have a loading factor value above 0.5 so that the model meets the convergent validity requirements. Apart from looking at the loading factor value of each indicator, convergent validity is also assessed from the AVE value of each construct. AVE value for each construct of this research is 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:

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

Variables	Items	Loadings	Cronbach’s Alpha	Composite Reliability	AVE
Hard Skills (HS)	HS1	0.657	0.859	0.894	0.586
	HS2	0.706			
	HS3	0.841			
	HS4	0.847			
	HS5	0.788			
	HS6	0.735			
Soft Skills (SS)	SS1	0.834	0.892	0.926	0.757
	SS2	0.879			
	SS3	0.848			
	SS4	0.916			
Organizational Learning	OL1	0.908	0.945	0.958	0.819

(OL)	OL2	0.937			
	OL3	0.940			
	OL4	0.868			
	OL5	0.870			
Teachers' Innovation	TIC1	0.875	0.937	0.952	0.798
Capability	TIC 2	0.887			
(TIC)	TIC 3	0.920			
	TIC 4	0.911			
	TIC 5	0.873			
Teachers' Performance	TP1	0.843	0.925	0.947	0.817
(TP)	TP2	0.918			
	TP3	0.938			
	TP4	0.915			

Tabel 3. Discriminant Validity

Variables	HS	OL	SS	TIC	TP
HS	0.766				
OL	0.733	0.905			
SS	0.760	0.821	0.870		
TIC	0.746	0.749	0.571	0.893	
TP	0.540	0.576	0.627	0.569	0.904

8

2. Discriminant Validity Test

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 the construct and the other construct (values below the diagonal) [73]. The results of discriminant validity test using the AVE squared value, namely by looking at the Fornell-Larcker Criterion Value obtained as Table 3. The results of the 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. Construct Reliability Test

Construct reliability can be assessed from the value of Cronbach's alpha and composite reliability of each construct. The recommended composite reliability and Cronbach's alpha values are more than 0.7. [73]. The reliability test results in table 2 above show that all constructs have composite reliability and Cronbach's alpha values greater than 0.7 (> 0.7). In conclusion, all constructs have met the required reliability.

Hypothesis Test

Hypothesis test in PLS is also called the inner model test. This test includes a test of the significance of direct and indirect effects and measurement of the magnitude of the effect of exogenous variables on endogenous variables. To determine the effect of soft skills, hard skills sharing and organizational learning on teachers' innovation capability and teachers' performance, it takes a direct effect test. The direct effect test is performed using the t-statistic test in the partial least squared (PLS) analysis model using the help of SmartPLS 3.0 software. With the bootstrapping technique, R Square values and significance test values are obtained as the table below:

Tabel 4. R Square Value

	R Square	R Square Adjusted
TIC	0.743	0.740
TP	0.600	0.595

Table 5. Hypothesis Test

Hypothesis	Relationship	Beta	SE	T Statistics	P-Values	Decision
H1	HS -> TIC	0.205	0.043	3.353	0.001	Supported
H2	SS -> TIC	0.340	0.040	4.658	0.000	Supported
H3	OL -> TIC	0.385	0.037	4.855	0.000	Supported
H4	HS -> TP	0.117	0.035	1.636	0.102	Not Supported
H5	SS -> TP	0.349	0.047	3.992	0.000	Supported
H6	OL -> TP	0.151	0.029	1.867	0.063	Not Supported
H7	TIC -> TP	0.222	0.026	2.674	0.008	Supported
H8	HS -> TIC -> TP	0.045	0.026	1.913	0.056	Not Supported
H9	SS -> TIC -> TP	0.075	0.026	2.288	0.023	Supported
H10	OL -> TIC -> TP	0.086	0.026	2.493	0.013	Supported

Based on Table 4 above, R Square TIC value of 0.743 means that the teachers' innovation capability (TIC) variable can be explained by hard skills (HS), soft skills (SS) and organizational learning (OL) variables by 74.3%, while the remaining 25.7% is explained by other variables (not discussed in this research). Meanwhile, the value of R Square teachers' performance (TP) is 0.600 which means that the teachers' performance (TP) variable is able to explain the variables of hard skills, soft skills, organizational learning and teachers' innovation capability (TIC) by 60.0%, while the remaining 40.0% is explained by other variables (not discussed in the research). While Table 5 displays the T Statistics and P-Values which show the effect between the research variables that have been mentioned.

Discussion

Based on the results of the research, it can be concluded that hard skills, soft skills sharing and organizational learning have a positive and significant impact on teachers' innovation capability. This means that the more positive organizational learning and hard skills and soft skills possessed by teachers, the teachers' innovation capability of individual teachers in school education institutions will also increase. This finding is in line with previous research on business the organizations, namely [74], [74]. Likewise, soft skills have a positive and significant effect on teachers' innovation capability. The results of this research also concluded that only soft skills had a positive and significant effect on the teachers' performance. This means that the better soft skills sharing controlled by a teacher, the more positive of teachers' performance in school education institutions. This is in line with the conclusions of [75], [76], research on business the organizations. This implies that the rarest and most valuable resources in the digital age are not ordinary teachers at mediocre, but teachers who can create new ideas and innovations [77], [78]. Teachers play a key role in producing and reusing their knowledge and intellectual

property through education and teaching. No doubt, in the future, the talent and response of school teachers in improving hard skills and soft skills will be an important factor in the future of nation's education. School teachers with skills and innovations will become capital luxury items and instruments of civilization.

Several researches have concluded that soft skills have more effect on innovation than hard skills [79], [80]. However, this research shows that hard skills have a greater effect on teachers' innovation capability. The rational possibility is because the research respondents were in big cities, namely in Jakarta, Bogor, Depok, Tangerang and Bekasi (Greater Jakarta).

Based on the findings of this research, the facts conclude that the teachers' innovation capability has a positive and significant effect on teachers' performance. The teachers' innovation capability also mediates the effect of soft skills and organizational learning on innovation capability. Likewise teachers' innovation capability has a positive and significant effect on teachers' performance. This is consistent with the conclusion of [81]. The research also concluded that school education institutions could manage past experiences to be combined with the current hard skills and soft skills that teachers have. In essence, the organizational learning is able to provide positive conditions in the process of knowledge creation in the current education 4.0 eras.

V. CONCLUSIONS AND SUGGESTIONS

Conclusions

To add the role of hard skills, soft skills and organizational learning as predictors of teachers' innovation capability, schools need to provide autonomy and breadth to share knowledge to the teachers. Therefore, schools need to create an organizational learning as positive environment that drives the competence and engagement of individual teachers in school education institutions. Indeed knowledge management will run effectively in school education institutions if the individual performance of each teacher is in good condition (Manaf et al, 2017).

Researchers continue to learn about knowledge as an important school resource. It can be said that skills, both hard skills and soft skills, can significantly improve teachers' innovation and performance.

Managerial Implications

Based on the conclusions of this research, the management of school education institutions needs to build maximum involvement of all teachers to continuously improve their hard skills and soft skills. Teacher training in each section of the school is a necessity with the level of intensity, content and context tailored to the key performance indicators of each teacher. In essence, team learning behavior created in the school environment will be a driving force for teachers' innovation (Widmann & Mulder, 2018).

The process of improving skills to build teachers' innovation capability of school education institutions should not only be limited to the internal processes of the school. 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 parents, government, communities, and other educational institutions. School management can activate learning from others when assigning their teachers to attend training, seminars, workshops, visits to other schools, meet with school committees and other strategic partners. Because external knowledge, such as those from trainers, coaches, students' parents, the government, the community, and other educational institutions support the teachers' innovation capability of school education institutions.

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

Limitation

This research has several limitations. First, this research analyzes the effect of hard skills, soft skills and organizational learning on teachers' performance of teachers, both directly and indirectly through the teachers' innovation capability variables. Because there may be several other variables that affect teachers' performance, the authors strongly recommend finding, exploring and analyzing them. Second, this research is conducted in a school educational institution environment and may not be generalized to other industries. Therefore it is highly recommended that further research can be carried out on this topic in other industries.

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