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## **Enhancing Innovative Behavior through Strengthening Self-Efficacy, Teamwork, Organizational Support, and Organizational Commitment**

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### **ABSTRACT**

*This research addresses the critical need to enhance innovative behavior among private vocational school teachers in Depok City, focusing on the interplay of self-efficacy, teamwork, organizational support, and organizational commitment. Despite existing studies on these variables, a gap remains in understanding their collective impact on fostering innovation in educational settings. The primary purpose of this research is to explore further how these factors contribute to teachers' innovative behavior, thereby providing insights for educational management. In order to achieve this, a field survey method was employed, gathering data from teachers to analyze the relationships between self-efficacy, teamwork, organizational support, and organizational commitment on innovative behavior. The findings of the research reveal that self-efficacy significantly influences organizational commitment, with coefficients indicating positive relationships: self-efficacy (0.131), teamwork (0.184), and organizational support (0.361). Furthermore, the research establishes that self-efficacy indirectly enhances innovative behavior through organizational commitment, highlighting the importance of fostering a supportive environment for teachers.*

**Keywords:** *Innovative Behavior, Organizational Commitment, Organizational Support, Self-Efficacy, Teamwork*

## INTRODUCTION

The National Education System is the basis for organizing and reforming education stipulated in the Law of the Republic of Indonesia. National education aims to create a society of quality and competitiveness in global life. The National Education System and objectives are stated in Law No. 20/2003. The National Education Law is to realize quality National Education, relevant to the needs of society and competitive in global life.

The objectives of national education in Law No. 20/2003 state that educational development in Indonesia seeks to develop the whole person. This is done to face the challenges of the development of civilization and globalization. Educational development not only leads to the preparation of humans to become someone who can fulfill their life functions but also those of society, state, and international. Accordingly, through Law No. 20/2003, education aims to prepare human beings who can bear all the consequences and responsibilities for all their actions.

Indonesian National Education contributes to changes in the education system through the development of the Industrial Revolution 4.0. The requirements for changes in the national education system will majorly impact human mindset and perception. The National Medium-Term Development Plan (RPJMN) (2015-2019) priority problem in the education sector, as stated in the national medium-term development plan document, is the low quality of teachers in the learning process. The Asian Development Bank (ADB) predicts that a decline in the quality of learning has the potential to deprive students of between US\$ 41 and US\$ 89 per year. Everything learned during education will determine students' skills when entering the workforce (Jayani, 2021).

Vocational High School (SMK) is a school that is prepared to enter the world by having skills and being able to work. Vocational graduates' orientation to meet industry needs increasingly prioritizes innovative human resources, but this has not aligned with their abilities. According to the Central Statistics Agency (BPS) survey results in 2020, Indonesia's Open Unemployment Rate (TPT) based on Vocational High School (SMK) education contributed a percentage of 18.28%, which is the highest figure compared to other education levels. The National Development Planning Ministry in Sukmana (2019) stated that many vocational schools are not by the needs of the market or the business world, so their graduates are not absorbed. Furthermore, teachers are still found to be less innovative in their fields, so students lack the stimulus to develop themselves into prospective quality human resources in the workplace. Therefore, the role of innovative vocational school teachers is important in developing students' abilities to face competition in the world of work.

Indonesia is still relatively low when it comes to innovative performance. Based on the Global Innovation Index of the last three years, Indonesia ranks 85th

out of 131 countries in 2020 due to a collaboration between Cornell University, INSEAD European Business School, and the World Intellectual Property Organization (WIPO). Indonesia ranked 85th with a score of 26.49, below Oman with a score of 26.50, and above Kenya with a score of 26.13. Indonesia's position has not changed compared to 2019, which was also 85th, but with a higher score of 29.72. The GII takes into account 80 indicators that are considered to explore a broad vision of innovation, including political environment, education, infrastructure, market development, and business sophistication. The 2020 edition of the GII highlights the state of innovation financing by investigating the evolution of financing mechanisms for entrepreneurs and other innovators and pointing out progress and other challenges, including in the context of the economic slowdown caused by the COVID-19 pandemic. Based on the Input Sub-Index and Output Sub-Index, Indonesia, which is categorized into the lower-middle-income economies, ranks 91st out of 131 countries/economies, respectively.

Indonesia ranks 87<sup>th</sup> out of 132 countries in the 2021 Global Innovation Index. This ranking has decreased by two levels from the previous year. According to the income level where Indonesia is included in the upper middle-income group, Indonesia is in the 27<sup>th</sup> position. This ranking is far below China, Bulgaria, and Malaysia, which occupy first to third positions. Meanwhile, when grouped by region, Indonesia occupies the 14<sup>th</sup> position in the Southeast, East, and Oceania regions. Neighboring countries such as Malaysia and Singapore are in a better position. The Global Innovation Index is a ranking created by the World Intellectual Property Organization (WIPO) to assess innovation inputs and outputs with 81 different indicators. The education sector includes these indicators, such as the position of universities in world rankings, PISA scores, the number of graduates in science and engineering, and others. For 2021, WIPO created a ranking focusing on the impact of the COVID-19 pandemic on increasing innovation.

Global Innovation Index also shows the strengths and weaknesses of each country in each indicator, including those related to education. Indonesia's higher education system is considered to be highly competitive. In the QS university ranking top 3 indicators, Indonesia ranks 34<sup>th</sup> out of the listed countries. On the other hand, one of Indonesia's weaknesses is the reading, writing, and arithmetic indicator by PISA, which places Indonesia in 72<sup>nd</sup> position out of 132 countries; PISA is the Programme for International Student Assessment issued by the Organization for Economic Co-operation and Development. It was conducted to assess the reading, math, and science levels of 15-year-olds.

Indonesia's other weakness in education is the lack of knowledge workers or intellectual labor. Indonesia ranks 126<sup>th</sup> in this indicator. As for Malaysia, in addition to the better quality of higher education, this neighboring country also has strengths in the high number of graduates in the fields of science and engineering. This factor supports Malaysia to be one of the countries with the best innovation index in the Asian region.

World Intellectual Property Organization (WIPO) has released the 2022 Global Innovation Index (GII). The index assesses which countries will be the most innovative during 2022. The index assesses the innovation performance in the economies of 132 countries. Switzerland scored the highest, making it the most innovative country in 2022. Switzerland ranks first on this index with a score of 64.6, followed by the United States with 61.8 and Sweden with 61.6. Meanwhile, Indonesia ranks 75<sup>th</sup> in the global ranking with a score of 27.9. Indonesia is classified as a lower-middle-income country and ranks 9<sup>th</sup> in this group. At the regional level, Indonesia ranks 13<sup>th</sup>. Based on these results, Indonesia is still below several other ASEAN countries, namely Malaysia, the Philippines, Vietnam, Thailand, and Singapore, which ranks second in the region.

The data shows a need to improve Indonesia's human resources, namely, increasing teachers' innovative behavior. Before the occurrence of COVID-19, the quality of education in Indonesia was classified as low. The problems caused by COVID-19 have impacted education, the economy, and public health conditions. The pandemic in education forces learning to be done through technology or Distance Learning (PJJ). Schools are forced to conduct learning not face-to-face, and learning activities are carried out online. This condition cannot yet determine the time limit for online learning.

Chertoff et al. (2020) revealed that the COVID-19 pandemic has caused a shift in teaching methods from classrooms to virtual spaces with all their limitations. Teachers must try to develop innovative behavior in teaching methods in the hope of implementing national education goals. Government policies to reduce the spread and impact of this virus on education are the implementation of physical distancing, social distancing, digital learning, and concept application.

The Indonesian Ministry of Education and Culture has instructed that learning be done remotely using technology. The mandate is contained in the Minister of Education and Culture's Decree 719 of 2020, which contains an emergency curriculum. The main point of the regulation is flexibility for education units for the curriculum according to the learning needs of students.

The Ministry of Education and Culture (Mendikbud) has issued Circular Letter No. 1/2020 concerning Merdeka Belajar Policy in Determining Student Graduation and New Student Admission for the 2020/2021 Academic Year. The concept of Merdeka Belajar was first coined by Minister of Education and Culture Nadiem Makarim so that students would be happy to pursue education. Learners are given the freedom to access knowledge. In independent learning, students are no longer limited by the curriculum, but students and teachers must be creative in reaching knowledge. Free learning is also used as the basis for the philosophy of change from the existing learning methods so far (*Kemendikbud Terbitkan Surat Edaran Nomor 1/2020 Tentang Kebijakan Merdeka Belajar*, 2020).

Free learning offers independence and freedom to educational institutions to explore their maximum potential by adjusting each student's interests, talents, and

inclinations. With this independence and freedom, education in Indonesia is increasingly advanced and of high quality, directly impacting the country's progress (Zamhari et al., 2023). Along with this program, the Ministry of Education and Culture also wants to improve the quality of teaching human resources in Indonesia through the "Guru Penggerak" program. Reporting from <https://sekolah.penggerak.kemdikbud.go.id/gurupenggerak>, the purpose of this program is to produce teachers who have a leadership spirit so that they can become a driving force for their colleagues to be ready to face the challenges of the world of education.

In this technological development in the 21<sup>st</sup> century, teachers can use technological developments. Technological development is a process of changing the teaching system towards innovative behavior. Innovative teachers can attract and stimulate learners' minds by applying fun lesson content during teaching. Teachers are encouraged to be familiar with technology, including search engines, digital platforms, and social media. This can familiarize teachers with various technological changes but can also be used to understand the social interaction patterns of learners who are a technology native generation.

Furthermore, Pustekkom in 2018 conducted a survey of teachers in Indonesia, the result was that only 40% had kept up with the development of information and communication technology (ICT). Around 60% are still stuttering with technological advances in the current digital era. If the number of teachers in Indonesia reaches 3 million, it means that 1.2 million teachers understand information and communication technology while 1.8 million teachers do not understand using technology. That is, the competence of teachers in Indonesia is still low in the world of ICT. The condition shows that teachers in Indonesia lack innovativeness in developing and renewing to achieve educational goals.

The success of the learning process in the disruptive era is the existence of adaptive, dynamic, and innovative teachers. Teachers are not only required to be able to convey subject matter but also be able to stimulate reasoning and critical thinking in students (Saragih & Zuhri, 2019) so that the output or output produced is that individuals are not only able to do routine activities but can innovate and become problem solvers (Toshpulatova & Kinjemuratova, 2020). Therefore, teachers should be able to see the long-term goals of the educational activities carried out, namely scientifically and characteristically improving human quality.

The necessity for innovative teachers is stated in Law No. 14/2005 concerning Teachers and Lecturers, emphasizing the obligation of teachers to continuously improve their personal and teaching quality through various media and channels. In line with this, the government also issued Regulation No. 19/2005 concerning National Education Standards, which alludes to the teaching process that must contain interactive, aspirational, fun, challenging, motivate students to participate actively, and provide sufficient space for initiative, innovation, and independence according to the talents, interests, and physical, and psychological development of students.

The new curriculum also emphasizes innovative content creation and delivery, directly affecting the quality of teaching and learning (Md Enzai et al., 2021). Teachers identify principal support as critical to successful teaching practices (Liebowitz, D. D., & Porter, 2019). When teachers feel supported by school managers, they reciprocate by serving inside and outside to raise the school's standards and reputation and to encourage innovative learners. The issue of innovative behavior is important to study by looking at the factors that influence it.

In general, other researchers have carried out research with the theme raised. However, no research has been found on the relationship between these variables. Therefore, increasing innovative behavior will be successful by optimizing several important aspects, namely building teamwork, self-efficacy, organizational support, and organizational commitment.

This research aims to find strategies, ways of implementation, and optimal solutions in improving the innovative behavior of teachers of accredited A private vocational schools located in Depok with permanent foundation teachers (GTY), which are expected to be recommendations for teachers, principals, supervisors, and education agencies. Particularly, this study aims to prove the direct effect of self-efficacy, teamwork, organizational support, and organizational commitment on increasing teachers' innovative behavior and the effect of self-efficacy, teamwork, and organizational support on organizational commitment. Moreover, this study also explores the indirect effects of self-efficacy, teamwork, and organizational support on teachers' innovative behavior through the mediating role of organizational commitment.

## **RESEARCH METHODOLOGY**

The research method used in this research is quantitative. Quantitative research is a scientific/scientific research method because it has fulfilled scientific principles, namely concrete/empirical, objective, measurable, rational, and systematic. This method is also a discovery method because the hypothesized results of the research can develop various new sciences. Quantitative is also intended so that existing data and variables are tested through numbers and analyzed using statistics (Sugiyono, 2017). The data collection method is carried out through field survey activities to know the effect of self-efficacy, teamwork, organizational support, and organizational commitment on the innovative behavior of private vocational school teachers in Depok City.

The data analysis method used in this research involves path analysis and SITOREM (Scientific Identification Theory to Conduct Operation Research in Education Management) analysis techniques. Combining these two techniques strengthens the research results so that the analysis unit can benefit. Path analysis is an extension of the frequently used multiple regression analysis, with the main difference being the independence of statistical procedures in determining cause-



and-effect relationships. Path analysis examines the direct and indirect effects between exogenous and endogenous variables, while multiple regression examines the partial and joint relationships between variables (Setyaningsih, 2020). Path analysis tests the contribution of the coefficient on each path diagram in the causal relationship between variables and their impacts. The influence between the independent and dependent variables can be the influence between the independent and dependent variables. The influence between the independent and dependent variables can be direct or indirect, based on the researcher's determined theoretical considerations. Regarding SITOREM, Hardhienata (2017) contends that in order to achieve an ideal solution, operations research in education management must incorporate the scientific identification theory previously discussed with statistical models and procedures.

The study examined the direct and indirect effects of several variables on teachers' innovative behavior (PI) by utilizing the path coefficient ( $\beta$ ) and significance level.

### **Direct Hypothesis Testing**

- H<sub>1</sub>: Self-efficacy (X<sub>1</sub>) has a direct positive influence on teacher innovative behavior (Y).
- H<sub>2</sub>: Teamwork (X<sub>2</sub>) has a direct positive influence on teacher innovative behavior.
- H<sub>3</sub>: Organizational support (X<sub>3</sub>) directly influences teacher innovative behavior.
- H<sub>4</sub>: Organizational commitment (X<sub>4</sub>) directly influences teacher innovative behavior.
- H<sub>5</sub>: Self-efficacy has a direct positive influence on organizational commitment.
- H<sub>6</sub>: Teamwork has a direct positive influence on organizational commitment.
- H<sub>7</sub>: Organizational support has a direct positive influence on organizational commitment.

### **Indirect Hypothesis Testing (Mediation of Organizational Commitment)**

- H<sub>8</sub>: Self-efficacy has an indirect positive influence on teachers' innovative behavior through organizational commitment.
- H<sub>9</sub>: Teamwork has an indirect positive influence on teacher innovative behavior through organizational commitment.
- H<sub>10</sub>: Organizational support has an indirect positive influence on teacher innovative behavior through organizational commitment.

## **RESULT AND DISCUSSION**

### **Normality Test**

The normality test in this study was carried out to ensure that the distribution of estimated errors from the regression model fulfills the normality assumption. The

test was conducted using the Kolmogorov-Smirnov Test with the help of the SPSS application on various pairs of independent and dependent variables.

The normality test results show that all Asymp. Sig. (2-tailed) values are above the 0.05 significance level. This applies to all combinations between the independent variables (self-efficacy, teamwork, organizational support, and organizational commitment) and the dependent variable (teacher innovative behavior) and between the independent variables themselves). Thus, all estimated errors in the regression model are normally distributed.

From the overall results, it can be concluded that all regression models in this study fulfill the assumption of normality of estimated errors, which is one of the essential prerequisites in linear regression analysis.

**Table 1.** Summary of Normality Test of Estimated Standard Error

No.	Estimated Standard Error	N	Asymp.Sig. (2-tailed)	$\alpha$	Prerequisite Normality test Sig > 0,05	Results
1	Y variable over $X_1$	233	0.200	0.05	$H_0$ is accepted $H_1$ is rejected	Normally Distributed
2	Y variable over $X_2$	233	0.200	0.05	$H_0$ is accepted $H_1$ is rejected	Normally Distributed
3	Variable Y over $X_3$	233	0.200	0.05	$H_0$ is accepted $H_1$ is rejected	Normally Distributed
4	Y variable over $X_4$	233	0.200	0.05	$H_0$ is accepted $H_1$ is rejected	Normally Distributed
5	Variable $X_4$ over $X_1$	233	0.200	0.05	$H_0$ is accepted $H_1$ is rejected	Normally Distributed
6	Variable $X_4$ over $X_2$	233	0.065	0.05	$H_0$ is accepted $H_1$ is rejected	Normally Distributed
7	Variable $X_4$ over $X_3$	233	0.200	0.05	$H_0$ is accepted $H_1$ is rejected	Normally Distributed

Source: Processed Data by Researchers

### Homogeneity Test

The homogeneity of variance test aims to test whether the dependent variable data group (Y)'s variance based on the independent variable (X) has the same or homogeneous variance. The test was conducted using Levene's Test at the significance level  $\alpha = 0.05$ , with the following criteria:

1. Accept  $H_0$  if Sig > 0,05; thus data variances are homogeneous.
2. Reject  $H_0$  if Sig < 0,05; thus data variances are not homogeneous.

The homogeneity test results for all pairs of variables in the study show that all significance (Sig) values, especially in the Based on Mean row, are greater than 0.05. This means that the null hypothesis ( $H_0$ ) is accepted for each test, and it can be concluded that all data groups come from populations with homogeneous variances.

**Table 2.** Summary of Data Homogeneity Test



No.	Variances	Sig. Test of Homogeneity Varians	$\alpha$	Homogeneity Test Prerequisite Sig. > 0,05	Results
1	Y over X <sub>1</sub>	0.106	0.05	H <sub>0</sub> is accepted H <sub>1</sub> is rejected	Homogeneous
2	Y over X <sub>2</sub>	0.087	0.05	H <sub>0</sub> is accepted H <sub>1</sub> is rejected	Homogeneous
3	Y over X <sub>3</sub>	0.109	0.05	H <sub>0</sub> is accepted H <sub>1</sub> is rejected	Homogeneous
4	Y over X <sub>4</sub>	0.061	0.05	H <sub>0</sub> accepted H <sub>1</sub> rejected	Homogeneous
5	X <sub>4</sub> over X <sub>1</sub>	0.314	0.05	H <sub>0</sub> accepted H <sub>1</sub> rejected	Homogeneous
6	X <sub>4</sub> over X <sub>2</sub>	0.113	0.05	H <sub>0</sub> accepted H <sub>1</sub> rejected	Homogeneous
7	X <sub>4</sub> over X <sub>3</sub>	0.116	0.05	H <sub>0</sub> accepted H <sub>1</sub> rejected	Homogeneous

Source: Processed Data by Researchers

Therefore, all tests of homogeneity of variance in this study are fulfilled, which means that the assumption of homogeneity of variance as a prerequisite in further testing (such as regression) has been statistically fulfilled.

### Linearity Test

The linearity test aims to determine whether the relationship between the independent and dependent variables in this study is linear, which is a prerequisite in linear regression analysis.

**Table 3.** Linearity Summary of Regression Equation

Variable Relations	Linearity of Regression Equation		Sig. Value	Results
	F <sub>count</sub>	F <sub>table</sub>		
$\hat{Y}$ over X <sub>1</sub>	1.342	1.421	0.084	Non -significant, Linear. Could be used to predict the level of teacher innovative behavior influenced by <i>self-efficacy</i> variables.
$\hat{Y}$ over X <sub>2</sub>	0.847	1.412	0.758	Non-significant, Linear. It can be used to predict the level of teacher innovative behavior influenced by <i>teamwork</i> variables.
$\hat{Y}$ over X <sub>3</sub>	0.593	1.427	0.983	Non-significant, Linear. It can be used to predict the level of teacher innovative behavior influenced by <i>organizational support</i> variables.
$\hat{Y}$ over X <sub>4</sub>	0.936	1.415	0.600	Non-significant, Linear. It can be used to predict the level of teacher innovative behavior influenced by <i>organizational commitment</i> variables.
X <sub>4</sub> over X <sub>1</sub>	1.715	1.421	0.066	Non-significant, Linear. It can be used to predict the level of organizational commitment influenced by <i>self-efficacy</i> variables.

X <sub>4</sub> over X <sub>2</sub>	0.825	1.412	0.791	Non-significant, Linear. It can be used to predict the level of organizational commitment influenced by <i>teamwork</i> variables.
X <sub>4</sub> over X <sub>3</sub>	0.804	1.427	0.812	Non-significant, Linear. It can be used to predict the level of organizational commitment influenced by <i>organizational support</i> variables
Significance Requirements: ( $F_{\text{count}} < F_{\text{table}}$ or Sig. Value $> \alpha = 0.05$ ). If the result shows Non-Significant, then the result of the equation is linear.				

Source: Processed Data by Researchers

The test results show that all relationships between variables have a deviation from linearity significance value greater than 0.05, which means there is no deviation from a linear relationship.

### Hypothesis Testing Result

**Table 4.** Summary of Hypothesis Testing Result

No.	Variables	Sig Value	t <sub>count</sub>	t <sub>table</sub>	Results
1	X <sub>1</sub> towards Y	0.005	2.804	1.97	H <sub>0</sub> rejected, H <sub>1</sub> accepted. Self-efficacy has a positive and significant direct influence on teachers' innovative behavior.
2	X <sub>2</sub> towards Y	0.003	3.003	1.97	H <sub>0</sub> rejected, H <sub>1</sub> accepted. There is a positive and significant direct influence of teamwork on teachers' innovative behavior.
3	X <sub>3</sub> towards Y	0.002	3.117	1.97	H <sub>0</sub> rejected, H <sub>1</sub> accepted. Organizational support is positive and signifies innovative behavior.
4	X <sub>4</sub> towards Y	0.000	6.394	1.97	H <sub>0</sub> rejected, H <sub>1</sub> accepted. Organizational commitment has a positive and significant direct influence on teachers' innovative behavior.
5	X <sub>1</sub> towards X <sub>4</sub>	0.029	2.198	1.97	H <sub>0</sub> rejected, H <sub>1</sub> accepted. Self-efficacy has a direct positive and significant influence on organizational commitment.
6	X <sub>2</sub> towards X <sub>4</sub>	0.013	2.511	1.97	H <sub>0</sub> rejected, H <sub>1</sub> accepted. Teamwork has a direct positive and significant influence on organizational commitment.
7	X <sub>3</sub> towards X <sub>4</sub>	0.000	4.957	1.97	H <sub>0</sub> rejected, H <sub>1</sub> accepted. Organizational support has a direct positive and significant influence on organizational commitment.
8	X <sub>1</sub> towards Y through X <sub>4</sub>	0.05	1.96	1.97	H <sub>0</sub> rejected, H <sub>1</sub> accepted. There is an insignificant positive indirect influence of self-efficacy on teachers' innovative behavior through organizational commitment.

No.	Variables	Sig Value	t <sub>count</sub>	t <sub>table</sub>	Results
9	X <sub>2</sub> towards Y through X <sub>4</sub>	0.022	2.288	1.97	H <sub>0</sub> rejected, H <sub>1</sub> accepted. There is a positive and significant indirect influence of teamwork on teachers' innovative behavior through organizational commitment.
10	X <sub>3</sub> towards Y through X <sub>4</sub>	0.000	3.630	1.97	H <sub>0</sub> rejected, H <sub>1</sub> accepted. There is a positive and significant indirect influence of organizational support on teacher innovative behavior through organizational commitment.

### SITOREM Analysis Result

The Scientific Identification Theory for Operational Research in Educational Management (SITOREM) method reduces and prioritizes suggestions or recommendations based on research results. SITOREM is a scientific identification theory that explains the stages of system analysis, modeling, and simulation (Hardhienata, 2017). In the preparation stage of problem-solving, there are three basic criteria used, namely: (1) the strength of the influence between the independent variable and the dependent variable, (2) the priority order of indicators, and (3) the value of indicators based on field data. After these three criteria are analyzed, the order of importance of actions that need to be taken to improve the condition of the dependent variable is then arranged.

**Table 5.** SITOREM Analysis Result

Self-Efficacy ( $\beta$ : 0.144) Rank IV		
Initial Indicators	After Assessment Indicators	Indicator Value
1, Assignment experience	1 <sup>st</sup> Successful trustworthy (26%)	4.08
2. Successful trustworthy	2 <sup>nd</sup> Assignment Experience (25%)	4.16
3. Motivational building	3 <sup>rd</sup> Technology change readiness (25%)	3.46
4. Technology change readiness	4 <sup>th</sup> Motivational building (24%)	3.84

Teamwork ( $\beta$ : 0.192) Rank III		
Initial Indicators	After Assessment Indicators	Indicator Value
1. Coordination	1 <sup>st</sup> Accountability (18%)	4.27
2. Accountability	2 <sup>nd</sup> Trustworthy (18%)	3.67
3. Solidarity	3 <sup>rd</sup> Coordination(17%)	4.38
4. Trustworthy	4 <sup>th</sup> Solidarity (16%)	4.27
5. Group goal	5 <sup>th</sup> Group goal (16%)	4.10
6. Mutually supportive	6 <sup>th</sup> Mutually supportive (16%)	3.66

Organizational Support ( $\beta$ : 0.205) Rank II		
Initial Indicators	After Assessment Indicators	Indicator Value
1. Justice provide	1 <sup>st</sup> Organization reward (28%)	3.78

2. Leader support	2 <sup>nd</sup> Leader support (25%)	4.32
3. organization support	3 <sup>rd</sup> Work condition (25%)	3.75
4. Work condition	4 <sup>th</sup> Justice provide (22%)	4.31

Organization Commitment ( $\beta$ : 0.363) Rank I		
Initial Indicators	After Assessment Indicators	Indicator Value
1. Affective commitment	1 <sup>st</sup> Continuous commitment (34%)	4.66
2. Continuous commitment	2 <sup>nd</sup> Normative commitment (34%)	3.78
3. Normative commitment	3 <sup>rd</sup> Affective commitment (32%)	3.84

Innovative Habits		
Initial Indicators	After Assessment Indicators	Indicator Value
1. Looking for new opportunities	1 <sup>st</sup> Generating creative ideas (21%)	4.05
2. Generating creative ideas	2 <sup>nd</sup> Applying ideas (21%)	3.79
3. Promoting ideas	3 <sup>rd</sup> Looking for new opportunities (20%)	4.29
4. Applying ideas	4 <sup>th</sup> Promoting ideas (19%)	3.86
5. Evaluating	5 <sup>th</sup> Evaluating (19%)	3.77

Priority order of indicators to be strengthened	Retained Indicators
1 <sup>st</sup> Normative commitment	1 <sup>st</sup> Continuous commitment
2 <sup>nd</sup> Affective commitment	2 <sup>nd</sup> Leader support
3 <sup>rd</sup> Organization reward	3 <sup>rd</sup> Clarity in providing information
4 <sup>th</sup> Work condition	4 <sup>th</sup> Accountability
5 <sup>th</sup> Trustworthy	5 <sup>th</sup> Coordination
6 <sup>th</sup> Mutually supportive	6 <sup>th</sup> Solidarity
7 <sup>th</sup> Technology change readiness	7 <sup>th</sup> Group goals
8 <sup>th</sup> Motivational building	8 <sup>th</sup> Successful Trustworthy
9 <sup>th</sup> Applying ideas	9 <sup>th</sup> Assignment experience
10 <sup>th</sup> Promoting ideas	10 <sup>th</sup> Generating creative ideas
11 <sup>th</sup> Evaluating	11 <sup>th</sup> Looking for new opportunities

## Research Discussion

### Direct Influence of Self-Efficacy towards Teacher's Innovative Behavior

The results showed that self-efficacy has a significant positive direct effect on teachers' innovative behavior, with a path coefficient value of  $\beta_{y1} = 0.144$ , count  $2.804 > t$  table 1.97, and Sig  $0.005 < 0.05$  at the significance level  $\alpha = 0.05$ . This

implies that the higher the teacher's self-efficacy, the higher the innovative behavior shown. Teachers with high self-efficacy tend to be more willing to try new methods, take risks in the learning process, and produce innovations because they believe in their ability to achieve the desired results. This innovation can be seen in making lesson plans, learning modules, and developing teaching methods and media. In contrast, teachers with low self-efficacy often have difficulty conveying their ideas, so learning becomes less developed. Harun (2022) stated that self-efficacy has a significant effect on innovative work behavior ( $\beta = 0.810$ ;  $p < 0.001$ ). Research by Supriatna (2019) also confirmed that high self-efficacy encourages teachers to show innovative behavior in learning. Thus, these findings confirm that self-efficacy is important in encouraging teachers' innovative behavior.

### **Direct Influence of Teamwork towards Teacher's Innovative Behavior**

The results showed that teamwork has a significant positive direct effect on teachers' innovative behavior, as evidenced by the path coefficient  $\beta_{y2} = 0.192$  with count  $3.003 > \text{table } 1.97$  and Sig  $0.003 < 0.05$  at the significance level  $\alpha = 0.05$ . This means that the stronger the teamwork among teachers, the higher the innovative behavior shown. In a solid team, teachers can share ideas, teaching methods, and best practices, which triggers inspiration and innovation. Emotional support from colleagues also increases motivation to try new approaches to learning. Teamwork supports the development of a more creative and relevant curriculum, creating a collaborative learning environment that encourages innovation. Generally, teamwork helps organizations achieve common goals through individual coordination and alignment, forming an adaptive, efficient, and sustainable work system. Teachers' innovative behavior is an attempt to find solutions and create new things, which can grow from internal and external support - and one of the main external factors is strong teamwork. This is also supported by Widmann & Mulder (2018), who showed that teamwork has a positive impact on the development of members' innovative behavior, evidenced by a p-value  $< 0.01$ . Collaboration in teams allows for exchanging ideas that strengthen creativity and produce better results than individual work. Thus, this study confirms that teamwork is important in improving teachers' innovative behavior.

### **Direct Influence of Organization Support towards Teacher's Innovative Behavior**

The results indicated that organizational support positively and significantly affects teacher innovative behavior. This is indicated by the path coefficient  $\beta_{y3} = 0.205$  with count  $3.117 > \text{table } 1.97$  and Sig value  $0.002 < 0.05$  at the significance level  $\alpha = 0.05$ . This means that the greater the organizational support, the higher the teacher's innovative behavior.

Johari et al. (2021) also corroborated these findings, stating a positive and significant correlation between group work and innovative behavior ( $\beta_{y3} = 0.398$ ,

$p < 0.01$ ), as well as between principal support and innovative behavior ( $\beta_3 = 0.107$ ,  $p < 0.01$ ). Innovative behavior includes creating new products, developing new methods, improving services, and evaluating changes. Therefore, if the school organization can provide comprehensive support for teachers, including accepting new ideas, supporting achievement, and rewarding them, teachers will be more encouraged to innovate. This study confirms that organizational support significantly positively affects teachers' innovative behavior.

### **Direct Influence of Organization Commitment towards Teacher's Innovative Behavior**

The results showed that organizational commitment directly positively and significantly affects teacher innovative behavior. This is evidenced by the path coefficient value of  $\beta_4 = 0.363$  with a  $t_{\text{count}}$  of  $6.394 > t_{\text{table}} 1.97$  and a Sig. value of  $0.000 < 0.05$  at the significance level  $\alpha = 0.05$ . This means the more substantial the organizational commitment, the higher the teacher's innovative behavior. This commitment can foster teacher confidence in implementing innovative teaching.

Nguyen et al. (2019) found that organizational commitment is positively and significantly related to employee innovative behavior ( $0.58$ ;  $p < 0.01$ ). Multiple hierarchical regression analysis supported this finding ( $p < 0.01$ ). Elshifa, A., Anjarini, A. D., & Kharis (2019) also stated that organizational commitment significantly positively affects teacher innovative behavior. Chen et al. (2018) added that attachment to work has a significant effect on middle managers' innovative behavior ( $\beta = 0.23$ ;  $t = 2.92$ ;  $p < 0.01$ ).

### **Direct Influence of Self-Efficacy towards Organization Commitment**

The results showed that self-efficacy directly positively and significantly affects teacher organizational commitment. This is evidenced by the path coefficient value  $\beta_{41} = 0.131$ ,  $t_{\text{count}} 2.198 > t_{\text{table}} 1.97$ , and Sig. value  $0.029 < 0.05$  at the significance level  $\alpha = 0.05$ . This means that the higher the self-efficacy, the stronger the organizational commitment. Teachers with high self-efficacy will show great responsibility for their duties and loyalty to the organization, which ultimately supports achieving organizational goals.

Maria et al. (2021) show that the dominant indicator of self-efficacy is  $0.778$ , while organizational commitment is  $0.843$ . Self-efficacy contributes  $26.90\%$  to organizational commitment, while other factors influence the rest. All indicators have a value above  $0.50$ . Koswara et al. (2021) also found that self-efficacy and teacher commitment to the organization have a positive and significant relationship ( $r_{y.3} = 0.319$ ). Kim (2018) confirmed that self-efficacy and optimism positively affect organizational commitment. They noted that organizational support positively influenced commitment ( $2.219$ ) and innovative behavior ( $2.313$ ), while self-efficacy had a value of  $2.019$ .



### **Direct Influence of Teamwork towards Organization Commitment**

The results showed that teamwork directly positively and significantly affects teacher organizational commitment. This is evidenced by the path coefficient value  $\beta_{42} = 0.184$ , count  $2.511 > t_{table} 1.97$ , and Sig. value  $0.013 < 0.05$  at the significance level  $\alpha = 0.05$ . This means that the stronger the teamwork implemented, the higher the teacher's organizational commitment. Solid teamwork will encourage teachers to be more committed to improving innovative behavior and confident in developing teaching methods at school.

Organizational commitment can be measured by a self-report scale, which includes three aspects: (1) acceptance of organizational goals-where employees work according to organizational expectations; (2) willingness to work hard-employees are willing to put in time and effort without expecting personal rewards; and (3) desire to remain part of the organization-where employees feel that the organization is where they thrive. Koswara et al. (2021) found a positive and significant relationship between teamwork and teacher commitment to the organization, with a correlation coefficient of  $r_{y.1} = 0.0346$ . Purnomo & Astuti (2022) also stated that teamwork significantly affects organizational commitment, with a significance value of  $0.000 < 0.005$ .

### **Direct Influence of Organization Support towards Organization Support**

The research shows that organizational support has a direct positive and significant effect on teacher organizational commitment, with path coefficient  $\beta_{43} = 0.361$ ,  $t_{count} 4.957 > t_{table} 1.97$ , and Sig value  $0.000 < 0.05$ . This shows that the greater the organizational support, the higher the teacher's commitment.

Organizational support is felt through fair rewards, decision-making participation, and superiors' supportive attitudes. This support can also take the form of leadership attention, adequate infrastructure, and a conducive work climate. According to Eisenberger et al. (2020), perceptions of organizational support reflect the extent to which the organization values contributions, supports, and cares about employee well-being. Arshad et al. (2021) found a mediating role between managerial support and organizational commitment ( $\beta = 0.32$ ,  $p < 0.05$ ).

### **Indirect Influence of Self-Efficacy towards Teacher's Innovative Behavior Through Organization Commitment**

The research results show that self-efficacy has a positive but insignificant indirect effect on teacher innovative behavior through organizational commitment, with a path coefficient  $\beta_{y41} = 0.0475$ , a Sobel test statistic value  $< t_{table} (1.96 < 1.97)$ , and a two-tailed probability value of  $0.050 = 0.05$  at the significance level  $\alpha = 0.05$ .

High self-efficacy is related to increased organizational commitment and job well-being. A strong commitment to the organization makes teachers feel more connected to the goals of the institution, which encourages them to be more open

to change and innovation in the way they teach (K, 2022). Thus, self-efficacy indirectly increases innovative behavior by strengthening organizational commitment to creating an environment that supports innovation.

### **Indirect Influence of Teamwork towards Teacher's Innovative Behavior through Organization Commitment**

The results showed that teamwork has a significant positive indirect influence on teachers' innovative behavior through organizational commitment, with path coefficient  $\beta_{y42} = 0.0668$ , Sobel test statistic value  $> t_{table}$  ( $2.288 > 1.97$ ), and two-tailed probability  $0.022 < 0.05$  at  $\alpha = 0.05$ . Thus, organizational commitment functions effectively as an intervening variable in the relationship between teamwork and teachers' innovative behavior. This reflects how teamwork supports educational innovation by enhancing a sense of community, collaboration, and dedication to institutional goals, which promotes learning innovation (Arceo, J.M. & Chua, 2022).

Strong team collaboration increases mutual trust, support, and cooperation in an educational context, encouraging teacher innovation. Organizational commitment is a mediator with a supportive work environment that encourages teacher engagement and innovation. K. (2022) stated that effective teamwork, supported by transformational leadership and a sense of purpose at work, significantly increased teachers' innovative behavior. Leadership and collective support are essential in creating a work atmosphere conducive to innovation. Arceo, J.M. & Chua (2022) showed that strengthening teamwork creates a synergy that increases teachers' commitment to the organization, encouraging innovative behaviors, including implementing new teaching methods and better learning strategies.

### **Indirect Influence of Organization Support towards Teacher's Innovative Behavior Through Organization Commitment**

The results showed that organizational support had a significant positive indirect effect on teachers' innovative behavior through organizational commitment, with path coefficient  $\beta_{y43} = 0.131$ , Sobel test statistic  $> t_{table}$  ( $3.630 > 1.97$ ), and two-tailed probability  $0.000 < 0.05$  at  $\alpha = 0.05$ . Thus, organizational commitment is practical as an intervening variable in the relationship between organizational support and teachers' innovative behavior.

Ertaş & Özdemir (2024) found that organizational support significantly positively affects teachers' innovative behavior, directly or through organizational commitment. Teachers who feel supported are more active in innovating, such as implementing new technologies. Organizational commitment is an employee's sense of identification, involvement, and loyalty to organizational goals, values, and objectives.

## CONCLUSION

The results showed a significant positive direct effect between self-efficacy, teamwork, organizational support, and organizational commitment on teachers' innovative behavior. This means that strengthening these variables can encourage an increase in teacher innovative behavior. In addition, self-efficacy, teamwork, and organizational support also have a significant positive direct effect on teachers' organizational commitment, so strengthening these aspects contributes to strengthening organizational commitment. However, the indirect effect of self-efficacy on innovative behavior through organizational commitment was positive but insignificant, indicating that organizational commitment did not play an effective role as a mediator in the relationship. In contrast, the indirect effect of teamwork and organizational support on teachers' innovative behavior through organizational commitment was significant, meaning that organizational commitment effectively mediates the relationship between these variables and teachers' innovative behavior.

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