



STRENGTHENING ORGANIZATIONAL CULTURE, TRANSFORMATIONAL LEADERSHIP, SELF-EFFICACY, AND ACHIEVEMENT MOTIVATION IN EFFORTS TO ENHANCE INNOVATIVENESS

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KEYWORDS	ABSTRACT
organizational culture, transformational leadership, self-efficacy, motivation.	Teacher innovativeness is the activity of a teacher in creating new ideas and placing oneself in a service and services that are improved or repaired to improve the quality of learning. This study aims to identify the direct influence of organizational culture, transformational leadership, self-efficacy, and achievement motivation on teacher innovation; the direct influence of organizational culture, transformational leadership, and self-efficacy on achievement motivation, as well as the indirect influence of organizational culture, transformational leadership, and self-efficacy on teacher innovation through achievement motivation. The research was conducted using quantitative methods with path analysis. The population of this study was 634 teachers at SMK Negeri in Kuningan Regency, with a sample size of 245 teachers. The results showed that there was a positive and significant direct effect: 1) organizational culture on teacher innovativeness ($\beta_{y1}=0.210; \alpha<0.01$); 2) transformational leadership on teacher innovativeness ($\beta_{y2}=0.433; \alpha<0.01$); 3) self-efficacy on teacher innovation ($\beta_{y3}=0.361; \alpha<0.01$); 4) achievement motivation on teacher innovation ($\beta_{y4}=0.126; \alpha<0.01$); 5) organizational culture on achievement motivation ($\beta_{41}=0.2143; \alpha<0.01$); 6) transformational leadership on achievement motivation ($\beta_{42}=0.099; \alpha<0.01$); 7) self-efficacy on achievement motivation ($\beta_{43}=0.666; \alpha<0.01$). The achievement motivation variable functions effectively as a mediator of the influence of self-efficacy on innovation and does not function effectively as a mediator of the influence of transformational leadership and organizational culture on innovation. This research has implications that educational organizations need to pay attention to factors to increase teacher innovation, such as building a work environment that supports innovation, providing training and support to improve skills and knowledge, and rewarding innovative ideas.

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INTRODUCTION

The rolling of the industrial era 4.0 has fundamentally changed the way people live, work, and interact with each other (Klingenberg et al., 2022). The industrial revolution 4.0 is often called the era of technological disruption or the digital revolution, characterized by the spread of computers and the automation of records in all fields. This revolution is characterized by a technological fusion integrating the physical, digital, and biological fields (Aaloul et al., 2020). An essential requirement to be able to adapt in facing the industrial revolution 4.0 is internal and external readiness related to governance and management that has been running. Through mature readiness and adaptability to technology, various threats and challenges can be turned into opportunities and advantages. In that framework, the primary key is innovating in all fields. It takes a high level of innovation in various professions, including educators or teachers.

The innovation shown by a country's human resources is one of the strategies for surviving super-fast changes, especially in the field of technology and excelling in competition. All countries strive to carry out various innovations in all fields. A map of the country's innovativeness can be seen from the Global Innovation Index (GII) data published by the World International Property Organization (WIPO), placing Indonesia in rank 85 out of 129 countries in 2019, rank 85 out of 131 countries in 2020, and rank 87 out of 132 countries in 2021. There was a decrease in ranking in 2020 compared to the previous year. In 2021, there was an increase, although not significantly. Although Indonesia's innovation index is still equivalent to the country's income and development level, it is still relatively low compared to neighboring countries, as a comparison can be seen in Table 1.

Table 1. Sample GII data countries in Asia Year 2021

Country	Order		
	2019	2020	2021
Korea South	11	10	5
Singapore	8	8	8
China	14	14	12
Japan	15	16	13
Malaysia	35	33	36
Thailand	43	44	43
Vietnamese	42	42	44
India	52	48	46
Philippines	54	50	51
Brunei	71	71	82
Indonesia	85	85	87
Sri Lanka	89	101	95
Pakistan	105	107	99
Cambodia	98	110	109
Bangladesh	116	116	116

Source: <https://www.wipo.int/publications/en/details.jsp?id=4541>necessary

Data regarding this innovation shows that the level of innovation in Indonesia is still far from expectations; compared to neighboring countries in the Southeast Asian region, Indonesia's position is still below. The problem of low innovation in Indonesia reflects that innovation in various aspects of life needs to be continuously improved. This index explains that education is one of the factors that support a country's innovation, so if you want to increase innovation, the quality of education needs to be improved.

Since 2020, the government has carried out national education reforms through independent learning, driving teachers, driving schools, and Pancasila student profiles to improve the quality of education. The independent learning policy is expected to provide independence to each education unit to innovate by adjusting the conditions of the learning process to culture, local wisdom, and socioeconomic and educational infrastructure. The essence of the independent learning policy is to explore the potential possessed by teachers and students to innovate and improve the quality of the teaching and learning process independently.

Specifically, about Vocational Schools, in March 2021, the government even launched the eighth episode of the Independent Learning Program with the theme of the Center for Excellence Vocational High School aimed at improving vocational education as a strategy for developing Indonesia's human

resources. Based on this policy, the Center for Excellence Vocational School is a comprehensive breakthrough aimed at responding to challenges in improving the current condition of Vocational Schools.

The approach to implementing this policy is by applying technology for acceleration, with diversity as the essence and the profile of Pancasila students. The role of technology in acceleration relates to how education can produce various types of techniques and innovations in each region, school, and student. Technology is one of the most possible ways to accelerate education. Furthermore, diversity as, an essence, relates to differences in school levels, students, and levels of regional fundamental competence, literacy, and numeracy. This difference must be adjusted to the teacher's flexibility in determining the level of teaching and assessment to measure students' abilities. At the same time, the profile of Pancasila students is related to curriculum adjustment, which has the goal of realizing student profiles in Indonesia through six indicators, namely: cognitive abilities, independence, creativity, cooperation, global diversity, and noble character.

Efforts to realize the independent learning policy, including in Vocational Schools through the Center for Excellence Vocational High School program, require teachers to make various innovations in providing educational services. Teachers are required to continue to create and do new things in learning. The teacher's innovativeness will make him continue exploring new ideas relevant to learning activities. The innovativeness of teachers is marked by activities in creating and implementing new ideas in the form of educational products, processes, and services that directly impact improving learning outcomes and achieving school goals. Innovation is needed in learning products that make teachers continuously produce new outputs or products that function as solutions to problems in learning, such as learning media that support students to master competencies and directly impact learning outcomes.

The teacher's innovativeness encourages the creation of novelty in the products used in teaching and learning activities. It creates new learning media that are interesting and effectively used, supporting mastery of student competencies. The innovativeness of teachers makes them more capable of providing new services that can make it easier for students to transfer knowledge and adapt to technological advances and the current development of the world of work. The teacher's innovativeness in modifying work processes to be more efficient will save time so that a certain amount of time can be utilized for development activities.

However, the facts show that teachers are not entirely innovative. Based on initial interviews with 3 principals of State Vocational Schools in Kuningan District, teachers still need help creating new products, improving existing products, and implementing cutting-edge learning. This condition can be seen in only a few teachers who can create their own learning aids or teaching materials. Most teachers still need help using and developing teaching materials and learning media that adopt the technology. In other aspects, teachers must still be more optimal in updating work plans and developing work methods. This condition can be seen in the few teachers who conduct classroom action research (CAR) to develop learning methods and media. While in the service aspect, teachers still need to utilize information technology in student learning services fully. Most teachers have yet to use applications that can be used to support learning fully.

While based on the results of a preliminary survey by distributing questionnaires to 30 PNS teachers at 4 (four) State Vocational Schools in the District Kuningan, 36.76% of teachers still need to be more constrained in being innovative. In more detail, the analysis based on the indicators is explained as follows.

1. 28.89% of teachers still need to show innovation about product novelty. This can be seen from the lack of teachers in improving facilities and infrastructure following developments, still needing to compile and implement various work plans.
2. 42.22% of teachers still need to be more optimal in developing innovativeness related to the learning process. This can be seen from the lack of teachers in innovating teaching methods, the need to make teaching preparations using the PPSI instructional design model (Instructional System Development Procedure), and the lack of teachers seeking information about making up-to-date learning media.
3. 39.17% of teachers still need to show innovation about services. This can be seen from the lack of teachers in providing learning services following the social background of students, still minimal in helping students find their learning resources, and the lack of teachers in providing solutions when students experience learning difficulties.

Based on these initial findings, it can be assumed that if innovativeness is still low, a solution cannot be found, it is at risk of decreasing educational services, especially in providing solutions to students' problems, the lack of action to develop the use of knowledge and skills, and the lack of focus on exciting and fun learning services for participants educate. As a result, students would prefer to follow the lesson. This condition will affect the achievement of predetermined educational goals, and it is feared that the quality of schools will decline. On this basis, it is necessary to analyze the factors that influence it so that reinforcement can be carried out to increase teacher innovation.

Research on innovation in various industrial fields has shown that efforts to increase innovation must be continued. Innovativeness in traveling, which examined 349 travel agent customers in Srinagar, India, showed that service innovation was the key to customer satisfaction and loyalty (Hollebeek & Rather, 2019). Research on innovativeness among teachers, among other things, proves a positive relationship exists between pedagogic competence and situational leadership, especially among private junior high school teachers in South Bogor District (Wahardi et al., 2017). Innovativeness among teachers is positively related to organizational culture and pedagogical competence (Marliana et al., 2018). The innovativeness of high school teachers in the city of Lubuklinggau is influenced by transformational leadership (Pestalozi et al., 2019). Research that measures the level of innovativeness of teachers in the Malatya Province, Turkey, concludes that shared leadership and empowerment are closely related to teacher innovation. Therefore, it is necessary to consider an environment where shared leadership can run optimally to increase teacher innovation and support teachers in decision-making. decision (Cobanoglu, 2021). It is proven that teacher innovation is also influenced by achievement motivation, teamwork, and organizational climate (Noviyanti et al., 2021). Research involving a large sample of 241,426 teachers from 15,672 schools spread across 48 OECD countries shows that the collective innovativeness of teachers is influenced by their autonomy in the classroom and collaborative school culture, specifically teacher participation in collective learning activities at school increases collective teacher innovation (Nguyen et al., 2021).

Based on the research studies previously described, several factors influence innovation, including pedagogic competence, situational leadership, empowerment, organizational culture, teamwork, achievement motivation, organizational climate, teacher autonomy, collaboration, and shared leadership (shared leadership). The difference in the research reported here focuses on innovativeness among State Vocational School teachers in Kuningan, West Java, specifically examining the influence of organizational culture, transformational leadership, self-efficacy, and achievement motivation. Studies on the influence of self-efficacy variables are expected to enrich various findings regarding innovativeness.

Organizational culture, as values, principles, traditions, and ways of working that guide members of the organization in their work, will shape the environment and behavior of members of the organization. A school organizational culture that instills a spirit of innovation is thought to increase innovativeness among teachers.

The teacher's innovativeness will be formed if it is strengthened by a leadership style that supports continuous improvement. Transformational leadership is leadership that inspires subordinates to commit to the vision and goals of the organization by developing the potential of subordinates to be able to solve and solve problems innovatively through coaching, mentoring, and support is a leadership style that is in line with increasing teacher innovation. Through strengthening transformational leadership, school principals can encourage teachers to innovate following developments in science, technology, and art.

Furthermore, self-efficacy plays a vital role in individual and environmental factors. Self-efficacy is a person's belief that he can manage and decide on the actions needed to carry out tasks properly. Teachers who have high self-efficacy are more likely to participate in the implementation of innovative teaching strategies and have a stronger focus on their teaching. Meanwhile, another variable that is thought to increase teacher innovation is achievement motivation. Achievement motivation is someone's encouragement or desire that will shape behavior to excel in carrying out activities or tasks as well as possible in order to achieve achievement. Teachers who have high motivation certainly have a strong drive to achieve achievements through the innovations they develop.

Based on the above background, this research aims to find ways to increase the innovativeness of teachers, especially State Vocational High School teachers in Kuningan Regency, through research on the influence of Organizational Culture, Transformational Leadership, Self-Efficacy, and Achievement Motivation variables. This research significantly benefits teacher innovation, especially at State Vocational Schools in Kuningan Regency. By finding the influence of organizational culture, transformational leadership, self-efficacy, and achievement motivation on teacher innovation, it is possible to identify what factors need improvement within the organizational environment to increase teacher innovation. In addition, this research can also provide new views and insights to related parties regarding the development and training for State Vocational School teachers in Kuningan Regency.

METHODS

This research was conducted using quantitative methods through path analysis techniques (path analysis). This research was conducted at State Vocational Schools within the scope of Kuningan Regency, West Java. There are 9 State Vocational Schools divided into 8 Districts in the Kuningan Regency, West Java, namely Kuningan, Ciwagebang, Cilimus, Cigugur, Cidahu, Luragung, Jepara, and Pancalang Districts. The target population in this study were all vocational teachers within the scope of the Kuningan Regency, West Java. At the same time, the reachable population in this study were teachers at State Vocational Schools in Kuningan Regency, West Java, with a total of 634 people. There are 9 State Vocational Schools divided into 8 Districts in the Kuningan Regency, West Java, namely Kuningan, Ciwagebang, Cilimus, Cigugur, Cidahu, Luragung, Jepara, and Pancalang Districts. The sampling technique used in this study used proportional random sampling by calculating the sample size using the Taro Yamane equation (in Singh, Ajay & Masuku, 2014) at a margin of error of 5%. Sources of research data used in this study consisted of primary and secondary data. The data analysis technique used is a research hypothesis test.

RESULTS AND DISCUSSION

Hypothesis test

First Hypothesis Testing

The calculation results obtained path coefficient values with $\beta_{y1} = 0.210$. The results of testing the significance of the coefficients obtained t_{count} of 6.227, and t_{table} ($dk = 242$, with $\alpha = 0.05$) of 1.969, and t_{table} ($dk = 242$, with $\alpha = 0.01$) of 2.596.

**Table 2. Calculation results of the direct influence test of variables
 Organizational Culture on Teacher Innovativeness**

Variable	N	dk	β_{y1}	t_{count}	t_{table} $\alpha = 0.05$	t_{table} $\alpha = 0.01$
X 1 on Y	245	242	0.210	6,227	1,969	2,596

Based on the calculation results as shown in the table, $t_{count} > t_{table}$ is obtained. Then H_0 is accepted, and H_1 is rejected. Thus, it can be concluded that organizational culture (X_1) has a positive and significant direct effect on teacher innovativeness (Y).

Second Hypothesis Testing

The calculation results obtained the path coefficient value with $\beta_{y2} = 0.433$. The test results obtained t_{count} of 13.593 and t_{table} ($dk = 242$, with $\alpha = 0.05$) of 1.979 and t_{table} ($dk = 242$, with $\alpha = 0.05$) of 1.969 and t_{table} ($dk = 242$, with $\alpha = 0.01$) of 2.596.

**Table 3. Calculation results of the direct effect test of variables
 Organizational Culture on Innovativeness**

Variable	N	dk	β_{y2}	t_{count}	t_{table} $\alpha = 0.05$	t_{table} $\alpha = 0.01$
X 2 on Y	245	242	0.433	13,593	1,969	2,596

Based on the calculation results as shown in Table 3, it is obtained $t_{count} > t_{table}$. Then H_0 is accepted, and H_1 is rejected. Thus, it can be concluded that transformational leadership (X_2) has a positive and significant direct effect on teacher innovation (Y).

Third Hypothesis Testing

The calculation results obtained path coefficient values with $\beta_{y3} = 0.361$. The test results obtained t_{count} of 8.409, t_{table} ($dk = 242$, with $\alpha = 0.05$) of 1.969, and t_{table} ($dk = 242$, with $\alpha = 0.01$) of 2.596. The results of the analysis and significance test of the path coefficient can be seen in Table 4.

**Table 4. Calculation results of the direct effect test of variables
 Self-Efficacy on Teacher Innovativeness**

Variable	N	dk	β_{y3}	t_{count}	t_{table} $\alpha = 0.05$	t_{table} $\alpha = 0.01$
X ₃ on Y	245	242	0.361	8,409	1,969	2,596

Based on the calculation results shown in Table 4, $t_{count} > t_{table}$ is obtained. Then H_0 is rejected, and H_1 is accepted. Thus, it can be concluded that self-efficacy (X_3) has a positive and significant direct effect on teacher innovation (Y).

Fourth Hypothesis Testing

The calculation results obtained path coefficient values with $\beta_{y4} = 0.126$. The test results obtained t_{count} of 2.877, t_{table} ($dk = 242$, with $\alpha = 0.05$) of 1.969, and t_{table} ($dk = 242$, with $\alpha = 0.01$) of 2.596. The results of the analysis and significance test of the path coefficient can be seen in Table 5.

**Table 5. Calculation Results of the Variable Direct Effect Test
 Achievement Motivation on Teacher Innovativeness**

Variable	N	et al	β_{y4}	t_{count}	t_{table} $\alpha = 0.05$	t_{table} $\alpha = 0.01$
X 4 on Y	245	242	0.126	2,877	1,969	2,596

Based on the calculation results shown in Table 5, $t_{count} > t_{table}$ is obtained. Then H_0 is rejected, and H_1 is accepted. Thus, it can be concluded that self-efficacy (X_4) has a positive and significant direct effect on teacher innovation (Y).

Fifth Hypothesis Testing

The calculation results obtained a path coefficient value with $\beta_{41} = 0.143$. The test results obtained t_{count} of 2.942, t_{table} (dk = 243, with $\alpha = 0.05$) of 1.969, and t_{table} (dk = 243, with $\alpha = 0.01$) of 2.596. The results of the analysis and significance test of the path coefficient can be seen in Table 6.

**Table 6. Calculation results of the direct effect test of variables
 Organizational Culture on Achievement Motivation**

Variable	N	et al	β_{41}	t_{count}	t_{table} $\alpha = 0.05$	t_{table} $\alpha = 0.01$
X 1 on X 4	245	243	0.143	2,942	1,969	2,596

Based on the calculation results shown in Table 6, $t_{count} > t_{table}$ is obtained. Then H_0 is rejected, and H_1 is accepted. Thus, it can be concluded that organizational culture (X_1) has a positive and significant direct effect on teacher achievement motivation (X_4).

Sixth Hypothesis Testing

The calculation results obtained a path coefficient value with $\beta_{42} = 0.099$. The test results obtained t_{count} of 2.142, t_{table} (dk = 243, with $\alpha = 0.05$) of 1.969, and t_{table} (dk = 243, with $\alpha = 0.01$) of 2.596. The results of the analysis and significance test of the path coefficient can be seen in Table 7.

**Table 7. Calculation Results of the Direct Effect Test of Variables
 Transformational Leadership on Achievement Motivation**

Variable	N	dk	β_{42}	t_{count}	t_{table} $\alpha = 0.05$	t_{table} $\alpha = 0.01$
X 2 on X 4	245	243	0.099	2,142	1,969	2,596

Based on the calculation results shown in Table 7, $t_{count} > t_{table}$ is obtained. Then H_0 is rejected, and H_1 is accepted. Thus, it can be concluded that transformational leadership (X_2) has a positive and significant direct effect on teacher achievement motivation (X_4).

Seventh Hypothesis Testing

From the calculation results, the path coefficient value is obtained with $\beta_{43} = 0.666$. The test results obtained t_{count} of 14.484, t_{table} (dk = 243, with $\alpha = 0.05$) of 1.969, and t_{table} (dk = 243, with $\alpha = 0.01$) of 2.596. The results of the analysis and significance test of the path coefficient can be seen in Table 8.

**Table 8. Calculation Results of the Variable Direct Effect Test
 Self-Efficacy on Achievement Motivation**

Variable	N	dk	β_{42}	t_{count}	t_{table} $\alpha = 0.05$	t_{table} $\alpha = 0.01$
X 3 on X 4	245	243	0.666	14,484	1,969	2,596

Based on the calculation results shown in Table 8, $t_{\text{count}} > t_{\text{table}}$ is obtained. Then H_0 is rejected, and H_1 is accepted. Thus, it can be concluded that self-efficacy (X_3) has a positive and significant direct effect on teacher achievement motivation (X_4).

Eighth hypothesis testing

Hypothesis testing is carried out by testing the indirect effect of organizational culture (X_1) on teacher innovation (Y) through achievement motivation (X_4). The statistical hypothesis tested is as follows.

$$H_0: \beta_{y41} \leq 0$$

$$H_1: \beta_{y41} > 0$$

The results of the calculation of the hypothesis are as follows.

$$\beta_{y41} = \beta_{41} \times \beta_{y4} = 0.143 \times 0.126 = 0.018$$

$$S_{41} = 0.06$$

$$S_{y4} = 0.036$$

$$S_g = \sqrt{\frac{(n_{41}-1)S_{41}^2 + (n_{y4}-1)S_{y4}^2}{(n_{41}+n_{y4}-2)}} = 0,050$$

$$t_{\text{count}} = \frac{\beta_{y41}}{S_g} = \frac{0.018}{0.050} = 0.363$$

t_{table} for $\alpha = 0.05$ and $dk = n - k - 1 = 245 - 2 - 1 = 242$ two-party test is 1.970.

From the calculation results, the path coefficient value is $41 = 0.018$. The test results obtained t_{count} of 0.363, t_{table} ($dk = 242$, with $\alpha = 0.05$) of 1.970, and t_{table} ($dk = 242$, with $\alpha = 0.01$) of 2.596. Based on the results of the calculation as shown, $t_{\text{count}} < t_{\text{table}}$. Based on these data, it can be concluded that the positive indirect effect of organizational culture on teacher innovation through achievement motivation is not significant. This means that achievement motivation is ineffective as a mediator of the influence of organizational culture on teacher innovation.

Ninth hypothesis testing

Hypothesis testing is carried out by testing the indirect effect of transformational leadership (X_2) on teacher innovation

(Y) through achievement motivation (X_4). The statistical hypothesis tested is as follows.

$$H_0: \beta_{y42} \leq 0$$

$$H_1: \beta_{y42} > 0$$

The results of the calculation of the hypothesis are as follows

$$\beta_{y42} = \beta_{42} \times \beta_{y4} = 0.099 \times 0.126 = 0.012$$

$$S_{42} = 0.038$$

$$S_{y4} = 0.036$$

$$S_g = \sqrt{\frac{(n_{42}-1)S_{42}^2 + (n_{y4}-1)S_{y4}^2}{(n_{42}+n_{y4}-2)}} = 0,037$$

$$t_{\text{count}} = \frac{\beta_{y42}}{S_g} = \frac{0.012}{0.037} = 0.337$$

t_{table} for $\alpha = 0.05$ and $dk = n - k - 1 = 245 - 2 - 1 = 242$ two-party test is 1.970.

The path coefficient value of $42 = 0.012$ is obtained from the calculation results. The test results obtained t_{count} of 0.337, t_{table} ($dk = 242$, with $\alpha = 0.05$) of 1.970, and t_{table} ($dk = 242$, with $\alpha = 0.01$) of 2.596. Based on the results of the calculation as shown, $t_{\text{count}} < t_{\text{table}}$. Thus, it can be concluded that the indirect effect of transformational leadership on teacher innovation through achievement motivation is not significant. This means that achievement motivation does not play an effective role as a mediator of the influence of transformational leadership on innovation.

Tenth Hypothesis Testing

Hypothesis testing is carried out by testing the indirect effect of trust (X_3) on teacher job satisfaction (Y) through achievement motivation (X_4). The statistical hypothesis tested is as follows.

$$H_0: \beta_{y43} \leq 0$$

$$H_1: \beta_{y43} > 0$$

The results of the calculation of the hypothesis are as follows.

$$\beta_{y43} = \beta_{43} \times \beta_{y4} = 0.666 \times 0.126 = 0.084 \quad S_{43} = 0.042$$

$$S_{y4} = 0.03$$

$$S_g = \sqrt{\frac{(n_{43}-1)S_{43}^2 + (n_{y4}-1)S_{y4}^2}{(n_{43}+n_{y4}-2)}} = 0,037$$

$$t_{count} = \frac{\beta_{y43}}{S_g} = \frac{0.084}{0.039} = 2,145$$

t_{table} for $\alpha = 0.05$ and $dk = n - k - 1 = 245 - 2 - 1 = 242$ two-party test is 1.970.

The path coefficient value of 41 = 0.084 is obtained from the calculation results. The test results obtained t_{count} of 2.145, t_{table} ($dk = 242$, with $\alpha = 0.05$) of 1.970, and t_{table} ($dk = 242$, with $\alpha = 0.01$) of 2.596. Based on the calculation results as shown, $t_{count} > t_{table}$. Thus, it can be concluded that self-efficacy significantly indirectly affects teacher innovation through achievement motivation. This means that achievement motivation plays an effective role as a mediator of the indirect effect of self-efficacy on innovation.

Discussion of Research Results

Direct Influence of Organizational Culture (X_1) on Teacher Innovativeness (Y)

From the data processing results, it can be concluded that the organizational culture variable (X_1) directly affects the teacher's creative ability (Y). This is proven based on the path coefficient value $\beta_{y1} = 0.210$ (Sig 0.000 < 0.05), meaning that the stronger the organizational culture, the higher the teacher's innovativeness.

The results of the research that has been carried out follow the results of research (Marliana et al., 2018) that organizational culture has a positive and significant relationship with teacher innovation as evidenced by the t_{count} (8.252) > t_{table} (2.617). Likewise, the results of research with similar conclusions, namely organizational culture, have a positive and significant effect on teacher innovation (Suharyati et al., 2016).

The study's results prove that organizational culture is an important variable that needs to be strengthened to increase the innovativeness of State Vocational High School teachers in Kuningan Regency, West Java. Organizational culture, as a set of values, norms, basic assumptions, beliefs, and principles that are learned and mutually agreed upon, is a guideline for innovative teacher activities. Through organizational culture, values can be embedded, which become a reference for teachers in daily activities, including innovating in learning.

Organizational culture is the inherent values, assumptions, behaviors, and general habits, represented as appearances, behaviors, and actions and interpreted collectively by each organization member (Siahaan et al., 2020). Organizational culture will shape the organizational structure and internal processes within it. These internal structures and processes will then produce social groups and processes to create work attitudes and behaviors that can produce outputs. The output referred to in this study is teacher innovation (Kinicki & Fugate, 2016).

The Direct Effect of Transformational Leadership (X_2) on Teacher Innovativeness (Y)

Based on the data processing results, it was concluded that there was a positive and significant direct effect of transformational leadership (X_2) on teacher innovativeness (Y). This is proven by the

path coefficient value obtained by $\beta_{y2} = 0.433$ (Sig value $0.000 < 0.05$). The results of this study can be interpreted that the better the transformational leadership carried out by the principal, the better the innovativeness of the teacher.

The results of the research that has been carried out follow the results of the study (Thahir et al., nd), which states that there is a positive and very significant relationship between transformational leadership variables ($r_{y12} = 0.379$; $\rho < 0.05$). Research also found similar conclusions (Sunardi et al., 2019) that transformational leadership has a positive and significant effect. Likewise, the results of research (Sukmanasa et al., 2021) prove a solid or significant relationship between transformational leadership and teacher innovation. The results of this study confirm that efforts to increase teacher innovation can be made by strengthening transformational leadership.

Direct Effect of Self-Efficacy (X_3) on Teacher Innovativeness (Y)

Based on the results of data processing, it was concluded that there was a positive and significant direct effect of the self-efficacy variable (X_3) on teacher innovativeness (Y) with the strength of the path coefficient value $\beta_{y3} = 0.361$ (Sig value $0.000 < 0.05$). In other words, it can be interpreted that the better the teacher's self-efficacy, the better his innovativeness will be.

This study's results align with research (Sunardi et al., 2019), which suggests that self-efficacy has a positive and significant effect. Similar results are also found in Tirmizi's research (2020) that self-efficacy influences the innovativeness of SMKN teachers in West Lombok ($r_y = 0.620$). Changing the teacher's attitude and paradigm in managing self-confidence will create courage in creating innovation in the tasks performed.

Self-efficacy plays a vital role in individual and environmental factors. Self-efficacy is a belief that one can control and decide on the actions needed to complete tasks correctly. Teachers who have high self-efficacy are more likely to participate in the implementation of innovative teaching strategies and have a stronger focus on their teaching. Educators are confident in directing and deciding on the actions needed to fulfill the right tasks. Innovations will be born in their teaching activities. In other words, the higher the teacher's confidence in his success in doing something, the more it is hoped that it will further increase work innovations in his teaching practice.

Previous research suggests a positive and significant relationship between self-efficacy and innovativeness (Nurhasan et al., 2021). Teacher self-efficacy is one thing that influences the success of teaching in schools. Teachers with low self-efficacy doubt their abilities, reduce their efforts to achieve goals, and even give up, affecting the teacher's ability to innovate. Conversely, teachers with higher self-efficacy are more likely to participate in knowledge-sharing exercises. Self-efficacy predicts events and related actions through the exchange of information and the translation of performance feedback. Self-efficacy also has a significant and positive effect on information-sharing behavior. Teachers with higher self-efficacy are more likely to participate in information-sharing practices.

The Direct Effect of Achievement Motivation (X_4) on Teacher Innovativeness (Y)

The data processing results concluded that there was a positive and significant direct effect of the achievement motivation variable (X_4) on teacher innovativeness (Y). This is evidenced by the value of the path coefficient $\beta_{y4} = 0.126$ (Sig value $0.004 < 0.05$). This means the more robust the teacher's achievement motivation, the higher the innovativeness.

This study's results align with the research (Noviyanti et al., 2021). He says a significant positive relationship exists between achievement motivation and teacher innovation. These results indicate that high teacher achievement motivation can encourage teacher innovation. Achievement motivation grows and develops within the teacher to do the best possible job to achieve goals. Achievement motivation

can be implemented when the teacher has the desire to succeed. The task of teaching is a challenge, so the teacher must have achievement motivation. An increase in motivational factors can be seen in individual teachers working harder. Teachers will be more active if they have the motivation to excel.

Teacher innovation requires strong achievement motivation from a teacher. Through achievement motivation, the teacher will have the drive or desire that will shape the behavior to be superior in carrying out the task as well as possible to achieve achievement. Teachers who have low motivation will find it easier to achieve through the innovations they develop. The existence of achievement motivation will be an impetus to excel in competition, obtain feedback on performance, and be diligent in carrying out tasks. High teacher achievement motivation results in teachers having the drive to meet needs in achieving specific goals, continue improving their abilities and want to avoid failure.

Direct Effect of Organizational Culture (X₁) on Teacher Achievement Motivation (X₄)

The data processing results concluded that there was a positive and significant direct influence of organizational culture variables (X₁) on teacher achievement motivation (X₄). This is evidenced by the path coefficient value $\beta_{41} = 0.143$ with a Sig value of $0.004 < 0.05$ and $t_{\text{count}} = 2.942$; In contrast, t_{table} at the fundamental level $\alpha = 0.05$ obtained $t_{\text{table}} = 1.969$, then $t_{\text{count}} > t_{\text{table}}$ means H₀ is rejected, and H₁ is accepted. In other words, it can be interpreted that the better the organizational culture, the better the teacher's achievement motivation will be followed. Organizational culture has a direct influence on teacher achievement motivation by 14.3%.

The results of this study are in line with the results of research (Hardianto, 2018) that organizational culture has a positive and significant direct effect on achievement motivation ($\beta_y = 0.303$; Sig < 0.05). The research results conclude that an increase in organizational culture is needed to increase performance motivation. Organizational culture is the most influential factor that increases motivation to succeed.

In education, organizational culture explains the differences between teachers in an educational organization on how to interact and act to get work done compared to teachers in other educational organizations. In addition, organizational culture can also bind teachers to have a unified vision that creates unity in behavior or action. The formation of an educational and organizational culture can contribute to increasing teacher achievement motivation. A solid organizational culture guarantees good achievement motivation because organizational culture serves as a guide for teachers in carrying out their daily tasks.

Direct Effect of Transformational Leadership (X₂) on Teacher Achievement Motivation (X₄)

Based on the results of data processing, it can be concluded that there is a direct positive and significant influence of the transformational leadership variable (X₂) on teacher achievement motivation (X₄) with a path coefficient value of $\beta_{42} = 0.099$ (Sig $0.033 < 0.05$). In other words, it can be interpreted that the better the principal's transformational leadership, the better the teacher's achievement motivation will be.

This study's results align with research (Wahyuni, 2016) that transformational leadership directly affects achievement motivation, as indicated by a path coefficient value of 0.333. Change leaders are more sensitive to the needs of their employees to increase performance motivation.

The hallmark of transformational leadership is how leaders motivate their subordinates to excel through encouragement in developing their potential to solve problems innovatively through coaching, mentoring, and support. This feature shows a very close relationship between transformational leadership and achievement motivation. Leaders who consistently encourage subordinates to do work

mean leaders who motivate someone to work better to achieve organizational goals. Through transformational leadership, the principal will provide inspirational motivation through optimism and enthusiasm about goals and the future. The indicator of transformational leadership is how subordinates have achievement motivation at work.

Direct Effect of Self-Efficacy (X₃) on Teacher Achievement Motivation (X₄)

Based on the results of data processing, it was concluded that there was a significant direct effect of the self-efficacy variable (X₃) on teacher achievement motivation (X₄), with a strength of influence $\beta_{43} = 0.666$ (Sig 0.000 < 0.05). The stronger the self-efficacy, the higher the teacher's achievement motivation. This study's results, self-efficacy is important in teacher achievement motivation (Maufuriyah, 2015).

The two factors above show an attachment to each other where people who are always sure they will succeed in the efforts made, at the same time, will have high motivation to do and complete them. The self-confidence possessed by a teacher will encourage him to do things that make him motivated to give achievements at work. High self-confidence will give a teacher the confidence and self-ability to produce achievements from what he is doing. In this case, if teachers always feel confident in their ability to complete a task, they will be encouraged to do it as well as possible to achieve high achievement.

Indirect Influence of Organizational Culture (X₁) on Teacher Innovativeness (Y) Through Achievement Motivation (X₄)

From the results of data processing, it was concluded that there was a direct but not significant effect of the organizational culture variable (X₁) on teacher innovativeness (Y) through teacher achievement motivation (X₄). This is evidenced by the value of the path coefficient $\beta_{y41} = 0.018$. Based on calculating the total direct influence of organizational culture, transformational leadership, self-efficacy, and achievement motivation on teacher innovation is 113%. Meanwhile, the total indirect effect is only 11.4%. These results show that the contribution of the indirect influence of the three independent variables through achievement motivation has a small number on teacher innovation. In other words, achievement motivation as an intervening variable in this study is not effective enough in supporting the influence of organizational culture on teacher innovation. Achievement motivation does not mediate, where the direct effect is stronger than the indirect effect. In other words, organizational culture has a more significant direct influence without having to go through achievement motivation. Based on the analysis of indicators, knowledge and technology integration greatly influence teachers' innovative behavior without having to strengthen self-efficacy.

Some factors that cause an insignificant indirect effect of organizational culture on teacher innovation through achievement motivation include limited resources such as time, funds, and facilities that hinder teacher innovation and achievement motivation. With the support of existing resources from the organization, teachers can achieve innovation. In addition, teachers' involvement in the decision-making process and their participation in developing organizational culture can influence their motivation to innovate. When teachers are not involved in organizational decisions, this can reduce their sense of ownership and responsibility for the innovation process. Another thing that influences this influence is when organizational culture needs to encourage change and innovation, making it difficult for teachers to try new things and innovate. This can reduce motivation and creativity.

Indirect Effect of Transformational Leadership (X₂) on Teacher Innovativeness (Y) Through Achievement Motivation (X₄)

From the results of data processing, there is a direct, insignificant effect of the transformational leadership variable (X₂) on teacher innovation (Y) through teacher achievement motivation (X₄). This is evidenced by the value of the path coefficient $\beta_{y43} = 0.038$ (Signf < 0.05).

As previously stated, the direct influence of transformational leadership variables on teacher innovation is greater than the indirect effect. This condition indicates that achievement motivation as an intervening variable in this study is not strong enough to support the effect of transformational leadership on teacher innovation. Achievement motivation does not mediate, where the direct effect is stronger than the indirect effect. This condition indicates that achievement motivation as an intervening variable in this study is not strong enough to support the effect of transformational leadership on teacher innovation. Achievement motivation does not have a mediating role, where the direct effect is stronger than the indirect effect; in other words, transformational leadership has a more significant direct influence without having to go through achievement motivation. This means that if you want to increase the innovativeness of the teacher, it will be more efficient when it is carried out directly by way of transformational leadership.

Several factors lead to an indirect, insignificant effect of transformational leadership on teacher innovation through achievement motivation, including the need for more ability to implement new ideas. Innovation requires the ability to implement new ideas, which can be challenging. Lack of ability or skills in implementing new ideas can affect the relationship between transformational leadership and teacher innovativeness through achievement motivation. In addition, differences between leadership styles and achievement motivation, individual factors, and environmental factors are also factors that influence the occurrence of an insignificant relationship between transformational leadership and teacher innovation through achievement motivation. Although transformational leadership and achievement motivation have much in common, they may need to be more aligned. Transformational leadership and achievement motivation do not always match the leadership style used in a particular organization or work culture.

Some teachers may be more motivated by personal or intrinsic achievement goals when viewed from individual factors. In contrast, others may be more stimulated by recognition or external encouragement. Meanwhile, when viewed from environmental factors such as time pressure, high administrative demands, and other daily task demands can hamper the teacher's ability to create and implement innovation.

Indirect Effect of Self-Efficacy (X₃) on Teacher Innovativeness (Y) Through Achievement Motivation (X₄)

From the results of data processing, it was concluded that there was a significant direct effect of the self-efficacy variable (X₃) on teacher innovation (Y) through achievement motivation (X₄). This is evidenced by the value of the path coefficient $\beta_{y43} = 0.084$ (Signf < 0.05). The results of this study indicate that achievement motivation has a significant role in supporting the creation of an indirect relationship between self-efficacy and teacher innovation. In other words, teachers' innovation ability increases when self-efficacy is increased, and self-efficacy strongly affects achievement motivation. Self-efficacy plays a vital role in teacher achievement motivation, with the level of self-efficacy affecting the level of teacher achievement motivation, indirectly affecting the teacher's ability to innovate (Maufuriyah, 2015).

Several factors, including organizational support, influence this significant influence. Organizations that provide support and opportunities for growth will increase teachers' self-efficacy and motivate them to be more innovative. A positive and supportive work environment can influence teachers' self-efficacy and motivate them to develop innovative ideas. In addition, the opportunity to develop oneself through training or professional development programs can also increase efficacy.

CONCLUSION

Organizational culture, transformational leadership, self-efficacy, and achievement motivation have a positive and significant direct effect on teacher innovation. Increasing innovativeness can be done by directly increasing these factors. Achievement motivation could be more effective as a mediator of the influence of organizational culture or transformational leadership on teacher innovation. However, it is effective as a mediator of the indirect effect of self-efficacy on teacher innovation. Therefore, strategies to increase teacher innovation need to pay attention to these factors and strengthen achievement motivation as a mediator of the effect of self-efficacy on teacher innovation.

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