

## Innovative Behavior of State Vocational School ASN Teachers in Minahasa District

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### ABSTRACT

This study aims to analyze the influence of teamwork, organizational culture, self-efficacy, achievement motivation, and transformational leadership on teachers' innovative behavior through job satisfaction as a mediating variable in State Vocational High Schools (SMKN) of Minahasa Regency. This study uses the Partial Least Squares-Structural Equation Modeling (PLS-SEM) method to test the direct and indirect relationships between research variables. This study uses a quantitative approach with a purposive sampling technique, involving SMKN teachers in Minahasa Regency as respondents. Data were collected through questionnaires and analyzed using PLS-SEM, which allows the evaluation of the measurement model and the causal relationship between the research variables. The results of the analysis show that teamwork, organizational culture, self-efficacy, achievement motivation, and transformational leadership have a significant influence on teachers' innovative behavior. In addition, job satisfaction acts as a mediator in the relationship between independent variables and teachers' innovative behavior. Among the variables studied, transformational leadership and self-efficacy have the most dominant impact on teachers' job satisfaction and innovative behavior. These findings indicate that increasing innovative teacher behavior can be achieved by strengthening transformational leadership, building a conducive organizational culture, increasing teacher self-efficacy and achievement motivation, and creating high job satisfaction. Therefore, educational policies and school

management strategies need to focus on these factors in order to improve the quality of teaching and innovation at SMKN Minahasa Regency.

**Keywords:** Teamwork, Organizational Culture, Self-Efficacy, Achievement Motivation, Transformational Leadership, Job Satisfaction, Innovative Behavior

## INTRODUCTION

In the context of modern education, which is constantly evolving, educational leadership plays a vital role in creating a conducive environment for the growth of teachers' innovative behavior. Visionary and transformative educational leaders can provide inspiration, support, and a sense of autonomy that enables teachers to innovate in designing learning strategies, utilizing technology, and developing evaluation methods relevant to students' needs. Such leadership not only promotes the professional development of teachers but also fosters intrinsic motivation to explore new approaches that can enhance the quality of the teaching and learning process. Therefore, the relationship between educational leadership and teachers' innovative behavior has become a crucial aspect in efforts to improve overall educational quality (Jelly Maria Lembong et al., 2023).

Human behavior at work is generally directed towards achieving goals, but individual limitations such as time, knowledge, and ability cause the need for cooperation and organizational life. In the context of education, school organizations play an important role in building human resources. One crucial element in education is the innovative behavior of teachers, which is very necessary to create adaptive, creative, and modern learning, especially in the implementation of the Merdeka Curriculum.

The innovative work behavior of vocational school teachers is still considered low, as reflected in the Global Innovation Index data and field survey results. An initial survey of civil servant teachers at several Minahasa vocational schools showed that only a small number were active in innovation development activities, both in the exploration, generation, promotion, and implementation of ideas. These obstacles are influenced by low internal motivation, lack of training, and minimal support from school organizations, including an atmosphere that is not yet conducive to change.

Previous research has shown that a number of factors influence innovative behavior, such as teamwork, organizational culture, self-efficacy, achievement motivation, transformational leadership, and job satisfaction. Solid teamwork encourages the sharing of ideas and creates a sense of psychological safety. An organizational culture that is open to innovation strengthens teachers' desire to try new things. High self-efficacy encourages self-confidence in facing challenges, and achievement motivation stimulates efforts to achieve maximum performance.

Transformational leadership has been shown to encourage teachers to develop through inspiration and role models. Meanwhile, job satisfaction is an important variable that acts as a mediator; teachers who are satisfied with their jobs tend to be more open, creative, and enthusiastic about innovating. In the context of vocational schools that demand innovation and speed of adaptation, all of these factors interact with each other and contribute to teachers' innovative behavior.

This study is important because until now, there has been no comprehensive study that tests these six variables simultaneously with job satisfaction as an intervening variable. Therefore, this study aims to analyze in depth how teamwork, organizational culture, self-efficacy, achievement motivation, and transformational leadership influence the innovative behavior of ASN teachers at SMK Negeri Minahasa Regency through job satisfaction, to formulate strategies to improve the quality of education based on teacher innovation.

## METHOD

This study uses a quantitative approach with an explanatory research type, namely, research that aims to explain the causal relationship between independent variables, intervening variables, and dependent variables statistically. This study specifically aims to analyze the influence of teamwork, organizational culture, self-efficacy, achievement motivation, and transformational leadership on the innovative behavior of ASN teachers in State Vocational High Schools, with job satisfaction as a mediating variable.

Innovative work behavior is the behavior of individuals to create new ideas, products, processes, and methods that can be implemented in the scope of a company, group, or organization and can generate benefits for the company, group, or organization. Indicators of innovative behavior include: exploration of ideas, generation of ideas, struggle for ideas, and implementation of ideas. Job satisfaction is a positive or negative feeling that someone feels about their job, which is influenced by various factors. Indicators of job satisfaction include: satisfaction with work, salary, promotion, and supervision. Teamwork is an activity carried out by a team of individuals who work together effectively and efficiently to achieve the same goal through a mechanism that has been set and agreed upon. To measure the level of cooperation, indicators are needed: working together, coordination, communication, and comfort. Self-efficacy is an individual's belief in their ability to face various situations and achieve goals optimally. The indicators are: strength, representative experience, verbal persuasion, and generality. Organizational culture is a system of values, norms, beliefs, and habits adopted by members of the organization in carrying out work activities. The indicators include: self-confidence, a firm attitude, the ability to manage emotion, and an orientation towards results. Achievement motivation is the drive within a person to achieve success, compete, and show the best performance in a particular field. Indicators of the need for achievement, the need for power, the need for affiliation, and the hope for self-development. Transformational leadership is leadership that influences employees to make employees feel confident, proud, loyal, and respectful of their leaders, and also has the motivation to do more than expected. Indicators of transformational leadership include: ideal influence, inspirational motivation, intellectual stimulation, and individual consideration.

The population in this study was all State Civil Apparatus (ASN) teachers who teach at State Vocational High Schools (SMK) in Minahasa Regency, totaling 375 people. Because the population is quite large, a sampling technique was used to determine the number of respondents who represent the

population. The sampling technique was carried out using the Slovin formula with a margin of error of 5%, so that a sample size of 194 respondents was obtained. The sampling technique used was the proportional stratified random sampling method.

The data collection technique used is a questionnaire. The questionnaire was distributed by distributing statements to ASN SMKN teachers in Minahasa Regency via Google Form. This study uses path analysis techniques. Path analysis is used to analyze the relationship patterns between variables to determine the direct and indirect influence of a set of independent variables (exogenous) on dependent variables (endogenous) (Sugiyono, 2016).

## RESULTS AND DISCUSSION

This study contains 7 variables, namely innovative behavior, job satisfaction, team cooperation, organizational culture, self-efficacy, achievement motivation, and transformational leadership. Data description can be seen in the following Table 1.

**Table 1.** Descriptive Statistics

	N	Min	Max	Mean	Std. Deviation	Std. Error
	Statis tic	Statis tic	Statis tic	Statis tic	Std. Error	Statistic
Innovative behavior	194	25.00	75.00	57.1289	.73327	10.21321
Job satisfaction	194	31.00	70.00	54.5825	.59522	8.29045
Teamwork	194	29.00	75.00	56.7062	.70129	9.76784
Organizational culture	194	30.00	75.00	55.5619	.68529	9.54503
Self-efficacy	194	18.00	75.00	55.8402	.82273	11.45933
Achievement motivation	194	27.00	65.00	49.3711	.60598	8.44037
Transformational leadership	194	24.00	65.00	47.5361	.62638	8.72441
Valid N	194					

In Table 1, it can be seen that the number of samples in this study was 194 people. The minimum values for each variable indicator were 25, 31, 29, 30, 18, 27, and 24, respectively, while the maximum values for each variable indicator were 75, 70, 75, 75, 75, 65, and 65. The standard deviation values were 10.21321, 8.29045, 9.76784, 11.45933, 8.44037, and 8.72441.

The Kolmogorov-Smirnov (K-S) test is a statistical method used to test whether a sample comes from a certain distribution, especially the normal distribution. This test compares the cumulative distribution of sample data with the theoretical cumulative distribution (normal). See Table 2.

**Table 2.** Tests of Normality

	Kolmogorov-Smirnov <sup>a</sup>		
	Statistic	df	Asymp. Sig.
Innovative behavior	.075	194	.101
Job satisfaction	.084	194	.512
Teamwork	.069	194	.253
Organizational culture	.070	194	.211
Self-efficacy	.060	194	.871
achievement motivation	.052	194	.200 <sup>*</sup>
transformational leadership	.065	194	.466

From Table 2, the data obtained:

1. Sig. Value (p-value) for the innovative behavior variable = 0.101 > 0.05, then  $H_0$  is accepted → normally distributed data
2. Sig. Value (p-value) for the job satisfaction variable = 0.512 > 0.05, then  $H_0$  is accepted → normally distributed data
3. Sig. Value (p-value) for the teamwork variable = 0.253 > 0.05, then  $H_0$  is accepted → normally distributed data
4. Sig. Value (p-value) for the organizational culture variable = 0.211 > 0.05, then  $H_0$  is accepted → normally distributed data
5. Sig. Value (p-value) for the self-efficacy variable = 0.871 > 0.05, then  $H_0$  is accepted → normally distributed data
6. Sig. Value. (p-value) for achievement motivation variable = 0.200 > 0.05, then  $H_0$  is accepted → data is normally distributed
7. Sig. Value (p-value) for transformational leadership variable = 0.466 > 0.05, then  $H_0$  is accepted → data is normally distributed

The heteroscedasticity test is one of the classical assumption tests in regression analysis, which aims to identify whether there is inequality in residual variance at each level of the independent variable. See Table 3.

**Table 3.** Heteroscedasticity Test

Model	Unstandardized		Stand . Coef. Beta	t	Sig.	Collinearity Statistics	
	Coefficients					Tol.	VIF
	B	Std. Error					
(Constant)	9.980	2.306		4.328	.000		
innovative behavior	-.010	.049	-.021	-.205	.837	.449	2.226
job satisfaction	-.081	.059	-.145	-1.370	.172	.426	2.350

organizational	.158	.054	.327	2.943	.504	.385	2.597
culture							
self-efficacy	.038	.040	.094	.941	.348	.477	2.095
achievement	-.105	.064	-.192	-1.650	.101	.350	2.857
motivation							
transformationa	-.125	.058	-.236	-2.139	.094	.390	2.561
l leadership							
a. Dependent Variable: Abs_RES							

Based on the results of the Glejser test, the significance value (Sig.) of all independent variables is greater than 0.05. This indicates that there are no symptoms of heteroscedasticity in the regression model, so the model is stated to meet the classical assumption of homoscedasticity.

Convergent validity is part of the measurement model, which in SEM-PLS is usually called the outer model, while in covariance-based SEM it is called confirmatory factor analysis (CFA). There are two criteria for assessing whether the outer model (measurement model) meets the convergent validity requirements for reflective constructs, namely (1) loading must be above 0.7 and (2) the p-value is significant (<0.05). See Table 4.

**Table 4.** Validity Testing based on Outer Loading

	X1	X2	X3	X4	X5	Y	Z
X2.1		0.962					
X2.2		0.962					
X2.3		0.962					
X2.4		0.956					
X3.1			0.962				
X3.2			0.959				
X3.3			0.962				
X3.4			0.959				
X1.1	0.959						
X1.2	0.957						
X1.3	0.960						
X1.4	0.960						
Y1							0.946
Y2							0.954
Y3							0.942
Y4							0.954
X4.1					0.954		
K4.2					0.957		
K4.3					0.957		
K4.4					0.961		
X5.1				0.953			
X5.2				0.955			
X5.3				0.954			

X5.4	0.960	
Z1		0.950
Z2		0.954
Z3		0.947
Z4		0.953

From Table 4, it can be seen that the loading factor value of all statement items is  $>0.70$ , so it is concluded that all statement items are convergently valid. Furthermore, validity testing is carried out based on the average variance extracted (AVE) value, reliability based on composite reliability (CR), and Cronbach's alpha (CA). See Table 5.

**Table 5.** Discriminant Validity Testing: Fornell & Larcker

	X1	X2	X3	X4	X5	Y	Z
X1	(0.959)						
X2	0.156	(0.960)					
X3	0.146	0.091	(0.960)				
X4	0.177	0.119	0.127	(0.956)			
X5	0.212	0.131	0.134	0.209	(0.957)		
Y	0.504	0.467	0.456	0.503	0.525	(0.951)	
Z	0.453	0.353	0.386	0.375	0.388	0.790	(0.949)

Based on Table 5, the AVE root value for each variable is  $>$  the correlation between constructs with other constructs, so it can be concluded that all variables are declared valid discriminants.

Composite Reliability is used in the Structural Equation Modeling (SEM) model, especially in the partial least squares (PLS) method. CR assesses the reliability of the construct as a whole by considering the weight of the indicators on the latent variables. See Table 6.

**Table 6.** Reliability Testing based on Composite Reliability (CR) and Cronbach's Alpha (CA)

	Cronbach's alpha	Composite reliability (rho_c)
X1	0.971	0.979
X2	0.972	0.979
X3	0.972	0.979
X4	0.968	0.977
X5	0.969	0.978
Y	0.965	0.974
Z	0.963	0.973

CR and CA  $\geq 0.70$ , the instrument has good reliability. From the table above, the Cronbach's alpha and Composite reliability values of all variables are  $> 0.70$ , so all variables are reliable.

The results of hypothesis testing, both directly and indirectly, can be summarized as in the following Table 7.

**Table 7.** Path Coefficient Test & Significance of Influence

Path	Coefficient	T statistics	P values
Teamwork → Job Satisfaction	0.295	6.609	0.000
Teamwork → Innovative Behavior	0.179	4.282	0.000
Organizational Culture → Job Satisfaction	0.228	4.744	0.000
Organizational Culture → Innovative Behavior	0.232	6.302	0.000
Self-Efficacy → Job Satisfaction	0.266	5.569	0.000
Self-Efficacy → Innovative Behavior	0.206	4.770	0.000
Achievement Motivation → Job Satisfaction	0.217	4.406	0.000
Achievement Motivation → Innovative Behavior	0.229	5.691	0.000
Transformational Leadership → Job Satisfaction	0.215	4.277	0.000
Transformational Leadership → Innovative Behavior	0.238	5.712	0.000
Job Satisfaction → Innovative Behavior	0.369	4.133	0.000
Teamwork → Job Satisfaction → Innovative Behavior	0.422	2.849	0.004
Organizational Culture → Job Satisfaction → Innovative Behavior	0.419	2.340	0.019
Self-Efficacy → Job Satisfaction → Innovative Behavior	0.421	2.637	0.008
Achievement Motivation → Job Satisfaction → Innovative Behavior	0.421	2.428	0.015
Transformational Leadership → Job Satisfaction → Innovative Behavior	0.420	2.190	0.029

Based on the results in Table 7, the following results were obtained:

1. Teamwork has a positive effect on job satisfaction, with a coefficient value = 0.295, and is significant, with T-Statistics = 6.635 > 1.96 and P-Values = 0.000 < 0.05 (Hypothesis Accepted).
2. Organizational Culture has a positive effect on job satisfaction, with a coefficient value = 0.228, and is significant, with T-Statistics = 4.650 > 1.96 and P-Values = 0.000 < 0.05 (Hypothesis Accepted).
3. Self-efficacy has a positive effect on job satisfaction, with a coefficient value = 0.266, and is significant, with T-Statistics = 5.481 > 1.96 and P-Values = 0.000 < 0.05 (Hypothesis Accepted).
4. Achievement motivation has a positive effect on job satisfaction, with a coefficient value = 0.217, and is significant, with T-Statistics = 4.306 > 1.96 and P-Values = 0.000 < 0.05 (Hypothesis Accepted).
5. Transformational Leadership has a positive effect on job satisfaction, with a coefficient value = 0.215, and is significant, with T-Statistics = 4.271 > 1.96 and P-Values = 0.000 < 0.05 (Hypothesis Accepted).



6. Teamwork has a positive effect on innovative behavior, with a coefficient value = 0.179, and is significant, with T-Statistics = 4.467 > 1.96 and P-Values = 0.000 < 0.05 (Hypothesis Accepted).
7. Organizational culture has a positive effect on innovative behavior, with a coefficient value = 0.232, and is significant, with T-Statistics = 6.396 > 1.96 and P-Values = 0.000 < 0.05 (Hypothesis Accepted).
8. Self-efficacy has a positive effect on innovative behavior, with a coefficient value = 0.206, and is significant, with T-Statistics = 4.793 > 1.96 and P-Values = 0.000 < 0.05 (Hypothesis Accepted).
9. Achievement motivation has a positive effect on innovative behavior, with a coefficient value = 0.229, and is significant, with T-Statistics = 5.790 > 1.96 and P-Values = 0.000 < 0.05 (Hypothesis Accepted).
10. Transformational leadership has a positive effect on innovative behavior, with a coefficient value = 0.238, and is significant, with T-Statistics = 5.641 > 1.96 and P-Values = 0.000 < 0.05 (Hypothesis Accepted).
11. Job satisfaction has a positive effect on innovative behavior, with a coefficient value = 0.369, and is significant, with T-Statistics = 4.325 > 1.96 and P-Values = 0.000 < 0.05 (Hypothesis Accepted).
12. Teamwork has a positive effect on innovative behavior through job satisfaction, with a coefficient value = 0.422, and is significant, T-Statistics = 2.849 > 1.96 and P-Values = 0.004 < 0.05 (Hypothesis Accepted).
13. Organizational culture has a positive effect on innovative behavior through job satisfaction, with a coefficient value = 0.419, and significant, T-Statistics = 2.340 > 1.96 and P-Values = 0.019 < 0.05 (Hypothesis Accepted).
14. Self-efficacy has a positive effect on innovative behavior through job satisfaction, with a coefficient value = 0.421, and significant, T-Statistics = 2.637 > 1.96 and P-Values = 0.008 < 0.05 (Hypothesis Accepted).
15. Achievement motivation has a positive effect on innovative behavior through job satisfaction, with a coefficient value = 0.421, and significant, T-Statistics = 2.428 > 1.96 and P-Values = 0.015 < 0.05 (Hypothesis Accepted).
16. Transformational leadership has a positive effect on innovative behavior through job satisfaction, with a coefficient value = 0.420, and is significant, T-Statistics = 2.190 > 1.96 and P-Values = 0.029 < 0.05 (Hypothesis Accepted).

### **There is an Influence of Teamwork on Teachers' Job Satisfaction**

Teamwork plays a significant role in enhancing teachers' job satisfaction. In educational environments, teachers who work in solid teams tend to feel more supported, both professionally and emotionally. Working in a team allows teachers to receive support from colleagues in terms of sharing experiences, teaching strategies, and problem-solving in the classroom. This can help reduce stress and increase comfort in their work. Team collaboration also enables the exchange of ideas, innovative

teaching methods, and learning materials. This not only improves teaching quality but also brings satisfaction, as it contributes positively to students' outcomes. Better teamwork has a positive impact on the level of job satisfaction. This means that when the level of teamwork increases, employees' job satisfaction also tends to improve (Rima Handayani & Eni Puji Astuti, 2023; Arifin, 2020).

### **The Influence of Organizational Culture on Teachers' Job Satisfaction**

The results of data analysis showed that the t-value (4.650) was greater than the t-table value (1.96), indicating that the hypothesis stating there is an influence of organizational culture on job satisfaction is accepted. The influence of organizational culture on teachers' job satisfaction at vocational high schools (SMKN) in Minahasa Regency can be observed through various aspects, including organizational values, work environment, leadership, and relationships among teachers and staff. A strong organizational culture with positive values such as collaboration, integrity, and innovation can enhance teachers' job satisfaction. When teachers perceive that the organizational culture aligns with their values, they tend to be more motivated and satisfied in their work.

The leadership style of school principals and school management plays a significant role in shaping teachers' job satisfaction. Supportive, communicative leadership that is open to feedback can improve teachers' work enthusiasm. This research is empirically supported by studies (Suryati, Nyoto & Sudarno, 2022; Tetuko, 2012; Batugal, 2019; Irawati & Sudarno, 2019; Putra et al., 2019), which show that organizational culture affects job satisfaction. Organizational culture provides guidance on appropriate behavior within the institution, meaning that teachers cannot behave as they please but must adapt to the norms and context of the organization they are part of. Furthermore, organizational culture is essential to an organization as it is inherently connected to the dynamics of work life.

### **The Influence of Self-Efficacy on Teachers' Job Satisfaction**

The results of data analysis showed that the t-value (5.481) was greater than the t-table value (1.96), indicating that the hypothesis stating there is an influence of self-efficacy on job satisfaction is accepted. Self-efficacy is one of the internal factors that affects both job satisfaction and performance. It refers to an individual's belief in their ability to motivate themselves to complete specific tasks, which includes the evaluation of self-efficacy and confidence in using information technology. A person's level of self-efficacy plays an important role in determining the amount of effort exerted as well as the individual's resilience in facing challenges and difficult experiences. The higher the perceived self-efficacy, the greater the persistence and perseverance shown. Conversely, individuals who doubt their abilities tend to reduce their efforts or even give up when facing difficulties. On the other hand, those with strong self-efficacy are more likely to strive harder in overcoming challenges.

This finding is supported by research conducted by Rahman Tanjung et al. (2020), which found that self-efficacy has a significant influence on job satisfaction. Therefore, educational institutions should pay close attention to the implementation of teaching and learning processes, ensuring that efforts are focused on collaboration among colleagues, as each individual's job satisfaction relates closely to the fulfillment of their specific roles and responsibilities.

### **The Influence of Achievement Motivation on Teachers' Job Satisfaction**

Achievement motivation has a positive and significant influence on teachers' job satisfaction. This means that the higher the level of achievement motivation possessed by teachers, the greater their level of job satisfaction. Teachers with strong achievement motivation tend to set high standards for themselves, have clear goals, and are driven to achieve the best possible outcomes in carrying out their professional duties. They possess an internal drive to excel, engage in healthy competition, and seek recognition for their accomplishments. This encourages teachers to be more diligent, innovative, and responsible in their work. The findings of this study are consistent with previous research conducted by Hartini et al. (2022), Liana (2012), Triantie et al. (2016), Parerungan & Tampubolon (2016), and Risnawati (2018), which demonstrated that achievement motivation has a strong impact on job satisfaction.

### **The Influence of Transformational Leadership on Teachers' Job Satisfaction**

The results of data analysis showed that the calculated t-value (4.271) is greater than the t-table value (1.96), indicating that the hypothesis stating a relationship between transformational leadership and job satisfaction is accepted. Based on the p-value, it was found that transformational leadership significantly influences the job satisfaction of teachers at vocational high schools (SMKN) in Minahasa Regency. These results demonstrate that the relationship between the two variables is positive. This means that transformational leadership and job satisfaction move in the same direction when transformational leadership increases, job satisfaction also tends to increase. Conversely, when transformational leadership declines, job satisfaction is also likely to decrease. These findings are supported by previous research conducted by Uzlah (2011) and Gita Fitrianti & Romat Saragih, 2020; Herry Sumual, et.al, 2024; Jenny Nancy Kaligis, 2023), which also confirmed the significant influence of transformational leadership on teachers' job satisfaction.

### **The Influence of Teamwork on Innovative Behavior**

Teamwork has a significant influence on innovative behavior because it enables team members to share ideas, experiences, and skills. In a collaborative work environment, individuals are more open to discussion and exploration of new ideas, which ultimately fosters creativity and innovation. When effective teamwork is present, each member feels supported and has the opportunity to contribute, making them more willing to take risks in trying new approaches. This creates a culture of innovation in which every team member feels valued and plays a role in the process of change. Teamwork positively affects innovative behavior. In the workplace, strong collaboration among team members provides a space that encourages the emergence of new ideas, experimentation, and creative problem-solving (Ryani Dhyana Parashakti et al., 2016).

### **The Influence of Organizational Culture on Innovative Behavior**

Organizational culture has a significant influence on the innovative behavior of teachers in vocational high schools (SMK) in Minahasa Regency. A positive organizational culture, such as support for creativity, collaboration, and freedom of expression, can encourage teachers to be more innovative

in developing teaching methods. When a school upholds values that emphasize innovation and change, teachers are more motivated to seek new ways to improve the effectiveness of their instruction. This finding is consistent with previous research conducted by Aurelia et al. (2024), which found that support and appreciation for new ideas have a substantial impact on innovative behavior within organizations. When innovative ideas are acknowledged, appreciated, and supported for implementation, employees feel recognized and motivated to continue contributing fresh ideas (Hasibuan, 2016).

### **The Influence of Self-Efficacy on Innovative Behavior**

The results of data analysis indicate that self-efficacy influences the innovative behavior of teachers at vocational high schools (SMKN) in Minahasa Regency. Self-efficacy refers to an individual's belief in their ability to accomplish tasks or face specific challenges. In the context of education, teacher self-efficacy refers to the extent to which a teacher believes they can manage a classroom, implement effective teaching methods, and overcome various obstacles in the teaching process. High self-efficacy enables teachers to be more confident in making decisions and innovating in their teaching practices. Conversely, low self-efficacy can lead to hesitation in trying new approaches and a tendency to stick with conventional teaching methods. This study aligns with the findings of Reza Dwi Ramadhan and Umi Anugerah Izzati (2023), who revealed that there is a strong and positive (direct) relationship between self-efficacy and innovative behavior. This indicates that the higher the self-efficacy of a teacher, the more likely they are to demonstrate innovative behavior. Conversely, the lower the teacher's self-efficacy, the less likely they are to engage in innovative practices.

### **The Influence of Achievement Motivation on Innovative Behavior**

Achievement motivation has a significant influence on the innovative behavior of teachers at public vocational high schools (SMKN) in Minahasa Regency. Teachers with high achievement motivation tend to be more proactive in finding new ways to improve the quality of learning. This motivation encourages teachers to be more open to change and technological advancement. In today's digital era, innovation in teaching is essential for students to keep up with the times. Teachers with a strong drive to excel are more likely to adopt technology in learning, such as digital media, project-based learning, and other interactive methods. This positively impacts the quality of education at SMKN in Minahasa Regency, as students gain more dynamic and industry-relevant learning experiences. As noted by Monoyasa (2017), teachers cannot generate innovative ideas solely from transformational leadership; they also need motivation to develop such ideas.

### **The Influence of Transformational Leadership on Innovative Behavior**

Transformational leadership has a significant influence on the innovative behavior of teachers in public vocational high schools (SMKN) in Minahasa Regency. Leaders who apply this leadership style can inspire and motivate teachers to continuously grow and to courageously try new things in the teaching process. With a clear vision and effective communication, school principals can encourage teachers to think creatively and seek innovative teaching solutions. The support and guidance from

visionary leaders create an environment conducive to the development of new ideas. This aligns with Suhana et al. (2019), who assert that transformational leadership significantly influences innovative work behavior. Leaders who inspire, motivate, and provide individual support foster a work climate that promotes innovation. Transformational behaviors such as articulating a clear vision, building trust, and providing intellectual stimulation play a crucial role in fostering teachers' innovative spirit (Eigel Krisfando Mamul, et.al, 2023).

### **The Influence of Job Satisfaction on Innovative Behavior**

Job satisfaction significantly influences the innovative behavior of teachers in public vocational high schools (SMKN) in Minahasa Regency. Teachers who are satisfied with their jobs tend to be more motivated to develop new teaching methods and improve the quality of education. Factors such as a supportive work environment, harmonious relationships with colleagues and supervisors, and fair reward systems can enhance job satisfaction. When teachers feel appreciated and adequately supported, they become more open to change and innovation in the teaching-learning process. This study aligns with findings by Sena et al. (2020), which suggest that job satisfaction positively affects innovative behavior, both from the work itself and the characteristics of the job. Fulfillment of job expectations contributes significantly to employees' innovative behavior.

### **The Influence of Teamwork on Innovative Behavior Through Job Satisfaction**

Teamwork has a significant influence on the innovative behavior of teachers in SMKN in Minahasa Regency through job satisfaction. The study shows that teamwork significantly influences the innovative behavior of civil servant teachers in SMKN through job satisfaction as a mediating variable. Good teamwork in the school environment allows teachers to share ideas, collaborate in overcoming teaching challenges, and support each other in developing more innovative teaching methods. In vocational schools, where learning approaches are often practice-based, strong teacher collaboration is key to creating innovations relevant to industrial and workplace needs.

The research also finds that job satisfaction plays a significant mediating role in the relationship between teamwork and innovative behavior. Teachers who are satisfied with their work environment, peer relationships, and leadership support are more likely to display innovative attitudes in their teaching. High job satisfaction increases enthusiasm and motivation to explore more effective and engaging learning methods for vocational students.

### **The Influence of Organizational Culture on Innovative Behavior Through Job Satisfaction**

Organizational culture significantly influences the innovative behavior of teachers in SMKN in Minahasa Regency through job satisfaction. The findings show that organizational culture significantly affects the innovative behavior of civil servant teachers in SMKN, both directly and through job satisfaction as a mediating variable. A strong organizational culture marked by values such as collaboration, openness to change, and support for innovation creates an environment conducive to creative thinking and the application of new teaching methods. When schools foster a culture of

innovation, teachers are more motivated to explore effective teaching strategies aligned with students' needs.

Furthermore, the study finds that job satisfaction reinforces the relationship between organizational culture and innovative behavior. Teachers who are satisfied with their work environment, peer relationships, and leadership support are more driven to innovate. High job satisfaction encourages teachers to develop more interactive, creative, and industry-relevant teaching methods, especially in vocational education settings.

### **The Influence of Self-Efficacy on Innovative Behavior Through Job Satisfaction**

Self-efficacy has a significant influence on the innovative behavior of teachers in SMKN in Minahasa Regency through job satisfaction. The study shows that self-efficacy significantly affects the innovative behavior of civil servant teachers, both directly and through job satisfaction as a mediating variable. High self-efficacy increases teachers' confidence in developing and applying innovative teaching methods. Teachers with high self-efficacy tend to be more optimistic in facing challenges, more persistent in solving problems, and more driven to experiment with new approaches.

Additionally, job satisfaction plays a crucial mediating role in the relationship between self-efficacy and innovative behavior. Teachers with high self-efficacy tend to feel more satisfied with their jobs because they believe they can overcome challenges and achieve expected results. This job satisfaction drives teachers to be more proactive and creative in designing effective and engaging learning strategies for students.

### **The Influence of Achievement Motivation on Innovative Behavior Through Job Satisfaction**

Achievement motivation significantly influences the innovative behavior of teachers in SMKN in Minahasa Regency through job satisfaction. The study shows that achievement motivation significantly affects the innovative behavior of civil servant teachers, both directly and through job satisfaction as a mediating factor. Teachers with high achievement motivation are more enthusiastic about finding new ways to enhance teaching quality. They possess an intrinsic drive to achieve optimal outcomes and show a strong commitment to educational innovation.

### **The Influence of Transformational Leadership on Innovative Behavior Through Job Satisfaction**

The hypothesis stating that transformational leadership significantly influences the innovative behavior of teachers in SMKN in Minahasa Regency through job satisfaction is accepted. The study reveals that school principals' transformational leadership has a significant impact on the innovative behavior of civil servant teachers, both directly and through job satisfaction as a mediating variable. Principals who apply transformational leadership can inspire, motivate, and support teachers in creating innovation in teaching. With visionary and empowering leadership, teachers are more encouraged to think creatively and develop more effective teaching methods.

## CONCLUSION

This research provides several influences for the world of education, especially in improving teacher job satisfaction and innovative behavior: 1. Building better teamwork between teachers through discussion forums, collaboration in lesson planning, and joint training to improve the quality of teaching. 2. Spreading an organizational culture that supports innovation by creating an environment that is open to change, giving teachers the freedom to experiment with new learning methods, and rewarding their innovation. 3. Increasing teacher self-efficacy through professional training, mentoring, and support from the principal so that they are more confident in facing teaching challenges. 4. Increasing teacher achievement motivation by providing appreciation for their achievements in improving the quality of education, either through incentives, awards, or career development opportunities. 5. Strengthening the transformational leadership of principals by encouraging principals to become inspirational leaders, supporting teacher professional development, and creating a supportive work environment for innovation. 6. Increasing teacher job satisfaction by improving their welfare, creating a supportive work environment, and providing opportunities for them to develop professionally.

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Based on the results of the research that has been conducted, it can be concluded that:

- 1) Teamwork has a positive effect on teacher job satisfaction, meaning that the better the teamwork, the higher the teacher job satisfaction, because the work environment becomes more harmonious and supportive.
- 2) Organizational culture has a positive effect on teacher job satisfaction, indicating that a strong and positive organizational culture can increase teacher comfort and satisfaction in carrying out their duties.
- 3) Self-efficacy has a positive effect on teacher job satisfaction, meaning that teachers who believe in their abilities tend to be more satisfied with their work because they feel able to overcome challenges.
- 4) Achievement motivation has a positive effect on teacher job satisfaction, indicating that teachers who have a high drive to achieve the best results feel more satisfied with their work.
- 5) The principal's transformational leadership has a positive effect on teacher job satisfaction, meaning that a principal who is able to inspire, support, and provide clear direction can increase teacher job satisfaction.
- 6) Teamwork has a positive effect on teacher innovative behavior, indicating that good cooperation allows teachers to exchange ideas and create innovations in learning.
- 7) Organizational culture has a positive effect on teachers' innovative behavior, meaning that a school environment that supports innovation makes teachers more motivated to create new learning methods.

- 8) Self-efficacy has a positive effect on teachers' innovative behavior, indicating that teachers who believe in their abilities are more willing to try innovative approaches in teaching.
- 9) Achievement motivation has a positive effect on teachers' innovative behavior, indicating that teachers with a high drive to succeed tend to be more creative in finding new ways to improve learning effectiveness.
- 10) The principal's transformational leadership has a positive effect on teachers' innovative behavior, indicating that principals who support innovation and provide inspiration can encourage teachers to be more creative.
- 11) Job satisfaction has a positive effect on teachers' innovative behavior, indicating that teachers who are satisfied with their jobs are more motivated to develop new ideas.
- 12) Teamwork has a positive effect on teachers' innovative behavior through job satisfaction, meaning that good cooperation between teachers creates a more comfortable and supportive work environment. Increased job satisfaction from these positive interactions encourages teachers to be more innovative in teaching methods, classroom management, and teaching material development.
- 13) Organizational culture has a positive effect on teachers' innovative behavior through job satisfaction, indicating that schools with a culture that encourages creativity and innovation can increase teachers' job satisfaction. When teachers feel supported by a school culture that is open to change and development, they are more motivated to create innovations in learning.
- 14) Self-efficacy has a positive effect on teachers' innovative behavior through job satisfaction, meaning that teachers who have high confidence in their abilities are more satisfied with their work and are more willing to try new approaches in the learning process. Teachers with high self-efficacy feel more capable of facing challenges in teaching and are more creative in finding solutions.
- 15) Achievement motivation has a positive effect on teachers' innovative behavior through job satisfaction, indicating that teachers with a strong drive to achieve success are more satisfied with their work and more motivated to develop innovative learning methods. Teachers who have a high spirit to achieve the best results tend to be more active in seeking new ways to improve teaching effectiveness.
- 16) The principal's transformational leadership has a positive effect on teachers' innovative behavior through job satisfaction, confirming that principals who are able to inspire, provide clear direction, and support teachers' professional development can increase their job satisfaction. High job satisfaction then has an impact on increasing creativity and innovation in the learning process and class management.

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