

## Building an innovative climate: The impact of leadership and well-being on innovative work behavior in educational settings

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**Abstract:** Innovative work behavior is important for organizational success, influenced by leadership, engagement, and creativity. Principals lead by creating an innovative climate, leveraging technology, and encouraging student ideas. Employee innovative behavior is key to driving organizational innovation. Research shows that factors such as self-efficacy, empowering leadership, and well-being play an important role in enhancing innovative behavior, which in turn can improve the quality of education and the work environment. This study examines the effect of empowering leadership on teacher innovation, highlighting the mediating role of self-efficacy and its interaction with well-being. This study uses a quantitative approach with a moderated survey design. The sample in this study consisted of 165 respondents, namely certified civil servant teachers at public junior high schools throughout Kediri Regency, taken using the Slovin method with a margin of error of 0.075. The research procedure includes testing data quality through validity and reliability using Smart PLS. Validity is tested with Pearson Correlation ( $>0.138$ ) and reliability with Cronbach Alpha ( $>0.400$ ). Convergent validity and AVE are also tested to ensure the measuring instrument is effective. Discriminant validity, inner model, and hypothesis testing using T-table ( $>1.96$ ) are important steps. The results are expected to provide in-depth insights into teaching innovation and recommendations to improve the motivation and teaching practices of civil servant teachers in public junior high schools. This study aims to create a productive and innovative learning atmosphere. This study shows that Empowering Leadership (X2) has no significant effect on Innovative Work Behavior (Y) with Original Sample (O) = -0.037, T = 1.014, and P = 0.311. In contrast, Work Self-Efficacy (X1) shows a strong positive effect with O = 0.593, T = 9.233, and P = 0.000. The interaction between Empowering Leadership (X2) and Wellbeing (M) is not significant (O = 0.011, T = 0.386, P = 0.700), and the direct impact of Wellbeing (M) on innovation is also not visible (O = 0.020, T = 0.576, P = 0.565). However, Work Self-Efficacy (X1) significantly affects Innovative Work Behavior (Y) with a value of O = 0.964, T = 52.013, and P = 0.000. The interaction between Work Self-Efficacy (X1) and Wellbeing (M) is also not significant (O = 0.015, T = 0.606, P = 0.545). The mediation path shows that Work Self-Efficacy (X1) significantly mediates the relationship between Empowering Leadership (X2) and Innovative Work Behavior (Y) with a value of O = 0.571, T = 8.746, and P = 0.000. This study suggests the development of Work Self-Efficacy among civil servant teachers of junior high schools in Kediri Regency to improve innovation.

**Keywords:** Empowering Leadership, Innovative Work Behavior, Leadership, Quality of Education, Self-efficacy.

### 1. Introduction

Innovative work behavior is critical to organizational success in the face of competition. Innovation involves the creation and implementation of new ideas, influenced by factors such as work engagement, creativity, and leadership. Research shows that transformational leadership and effective performance management systems drive innovation in organizations. (Rimadias et al., 2017; Suryanto et al., 2022). Organizational support, knowledge sharing, and innovative work environment contribute to

innovative work behavior. In addition, research on digital competence shows a significant impact on human resource innovation.(Hidayat et al., 2019; Yusuf, 2021). To increase innovation, organizations need to focus on building an innovative climate and leveraging technology and knowledge sharing at the junior high school level.(Ismail et al., 2013; Jainah et al., 2019).

Principal leadership is an important aspect in the implementation of effective education. (Noori et al., 2023). The essence of this leadership includes the drive, intelligence, and experience to develop a clear educational vision that can be implemented in a decentralized context. In a decentralized leadership model, the principal is required to lead in a more autonomous way, giving freedom to teachers and staff to contribute to the decision-making process. This not only strengthens the sense of responsibility, but also creates a positive and innovative work climate in the school environment. Teachers, as learning leaders in the classroom, play an important role in the educational process(Hermanto et al., 2024). In this context, educational leadership is key. According to(Ilyas & Zaman, 2020), educational leadership can be interpreted as an approach that allows teachers to teach knowledge that is useful for students' cognitive development. The interaction between teachers and students in an educational context must be based on clear goals, relevant materials, and structured procedures. The teacher acts as a guide, who not only teaches, but also creates a disciplined and evaluative learning atmosphere.(Hastasari et al., 2022). The importance of educational leadership can be seen from three main aspects: the use of technology, igniting ideas, and creating a different learning atmosphere. First, educational leaders must be able to utilize technology as a tool in the learning process. By utilizing gadgets and educational applications, the teaching and learning process becomes more interesting and efficient. Second, educational leadership must be able to entice ideas from students. Students often have creative ideas that can be used to improve the learning process.(Rowiyanto & Maryono, 2023). By encouraging students to think creatively, teachers also build their self-confidence and independence. Third, creating a different learning atmosphere is key in educational leadership. An effective teacher will create an environment where students feel comfortable and engaged in the learning process. This can be achieved through persuasive methods that prioritize two-way interaction, not just a one-way process. This atmosphere will help students feel more connected to the material being taught, while strengthening the relationship between teacher and students. In the study(Falloon, 2024), outlined five characteristics of successful school leaders. First, they understand the importance of building community. According to Megan Tschannen-Moran, trust is key to building a strong school community. In schools with high levels of trust, students are more motivated to engage in learning because they feel connected to their teachers and the school environment. Second, educational leaders have a clear vision and plan. Vision provides direction and momentum for all team members(Ertesvåg et al., 2022). Effective leaders are able to communicate this vision well, so that all team members feel inspired and motivated to achieve it. Third, good leadership must lead by example. A leader who behaves in accordance with the expected principles and values will earn the respect of students and colleagues. Fourth, educational leaders are lifelong learners. They recognize that they will never know everything and always seek to deepen their knowledge and skills. This creates a positive learning culture in the school. Fifth, leaders must encourage risk-taking. Failure is not the end of the learning process; rather, it is an opportunity to learn and grow. By creating an environment that supports risk-taking, leaders can help students and staff feel comfortable exploring new ideas without fear of negative consequences.(Gencer & Samur, 2016). In the context of leadership behavior, behaviorism theory emphasizes that great leaders are the result of a long formation process. This is reflected in the principles of integrity, consistency, and honesty. Innovative behavior in educational leadership can be analyzed using the behaviorism approach, which emphasizes the importance of changing student behavior through the use of stimulus and response.(Absalome et al., 2024). This study focuses on certified Civil Servant (PNS) teachers in Public Junior High Schools throughout Kediri Regency, with a population of 2,115 teachers. The aim is to explore psychological and leadership concepts that can influence innovative behavior in the context of education. The geographical limitation in Kediri Regency allows this study to provide more specific insights into the factors that influence innovation in teaching. The data collected are expected to provide an in-depth understanding of innovative work

behavior among PNS teachers in the region, which is broken down by the number of teachers in each sub-district.

(Al-Omari et al., 2019), Importance of Innovative Behavior: Employee innovative behavior is recognized as a key driver of innovation across organizations, enabling organizations to remain competitive in a dynamic economy. Determinants of Innovative Work Behavior: This study identified various factors that influence employee innovative behavior, such as: Individual Characteristics: Internal motivation, creative skills, and the ability to identify innovation opportunities.(Gotseva-Balgaranova, 2023), The Influence of Self-Efficacy on Social-Emotional Competence: This study shows that low feelings of self-efficacy have a significant impact on children's social-emotional competence, such as the ability to manage emotions, interact with others, and face social situations with confidence.(Hilal et al., 2022), The Effect of Distributed Leadership on Teacher Agency: The results of the analysis show that distributed principal leadership has a significant direct and indirect effect on teacher agency. This means that when distributed leadership is carried out, it has a positive effect on teacher agency.(Eriksen, 2007), Development of Self-Understanding and Problem Solving: Through a process of deep reflection and engagement in self-selected leadership problems, students can develop a better understanding of their strengths and weaknesses in leadership. They also learn how to solve these problems in a practical way.(Tudryn et al., 2016), Planned Distributors: Leaders who are younger, better educated, and have less experience in their current positions. They work in larger school districts with higher poverty rates.(Shah et al., 2023), The Role of WPL in Facilitating IWB: The results of the study indicate that Workplace Learning (WPL) facilitates innovative behavior among SME employees. Workplace learning helps improve employee competencies and skills, which contributes to increased IWB. Informal and Incidental Learning Are More Critical: Compared to formal learning, informal and incidental learning are shown to be more critical predictors in driving innovative behavior. This learning includes unstructured daily activities at the workplace.(Kloping et al., 2022), Burnout and Mental Health High Across Regions: The study results show that medical students across Indonesia report high levels of burnout and symptoms of mild psychiatric disorders (poor mental health).(Unterrainer et al., 2017), Positive Effect of DLA on Self-Efficacy: The results of the study show that DLA has a significant positive effect on employee self-efficacy cross-sectionally at Time 1 and Time 2, as well as cross-lagged.(Jankelová et al., 2021), Direct Relationship: The study found that there is a significant relationship between employee innovative behavior and business performance (sales level). This shows that management support for innovative behavior is positively correlated with increased business performance. Cognitive Diversity as a Mediator: The results of the analysis show that cognitive diversity partially mediates the relationship between innovative behavior and business performance. Differences in knowledge and ways of thinking play an important role in strengthening the relationship between innovation and business results.(Prasad Panigrahy et al., 2021), Relationship between Self-Efficacy and Well-Being: This study found a positive relationship between self-efficacy and well-being at work. Executives with higher self-efficacy tend to have better well-being at work. Moderating Role of Resilience: The moderating effect of resilience on the relationship between self-efficacy and well-being at work was confirmed. The results showed that executives with higher resilience strengthened the positive relationship between self-efficacy and well-being at work.(Lianto, 2019), Leadership: Self-efficacy contributes to leadership effectiveness (Propst and Koesler, 1998).(Firdaus & Sumartik, 2023), Influence of Work Discipline: Work discipline has also been shown to have a significant influence on employee performance.(O'Reilly et al., 2010), Leader Effectiveness: Research finds that significant performance improvements occur only when leader effectiveness at multiple levels is considered in aggregate. Decision Implementation: These findings emphasize the importance of considering the interaction and consistency of leader effectiveness across levels to understand how strategic decisions are implemented in organizations.(Shabalala et al., 2023), Barriers in Power Relations: Research has found that hierarchical power relations in the school system hinder the active participation of various stakeholders in decision-making, especially in curriculum management. Difficulties in Curriculum Modification: The process of curriculum modification, which is essential for the implementation of environmental education, is hampered by rigid power structures.(Davis & DeWitt, 2021), Differences in Focus of Dependent Variables: Research shows that the main difference between management strategy

and organizational theory lies in the choice of dependent variables used by researchers, which leads to different questions regarding firm behavior and performance. (Dearing & Cox, 2018), Linkages to Other Processes: This study clarifies the relationship between innovation diffusion and other processes such as dissemination, implementation, sustainability, and scale-up. This provides a more comprehensive understanding of how innovations can be integrated into health practices. Diffusion Principles for Interventions: This study suggests diffusion principles that can be applied in intervention design, providing guidance for practitioners and researchers in developing more effective strategies for innovation diffusion. (Kmieciak, 2020), Impact of Knowledge Sharing on Innovation: Only knowledge contribution behavior showed a significant relationship with idea generation, which was also strongly related to idea realization. In contrast, there was no direct relationship between knowledge sharing behavior and idea realization. Mediator Role: This study found that knowledge contribution behavior acts as a mediator in the relationship between vertical trust and idea generation. (Jønsson et al., 2021), Positive Relationship: The results show that empowering leadership and self-efficacy are positively related to DLA, which is also related to innovative behavior. This suggests that empowering leadership can enhance DLA and ultimately drive innovation in the workplace. (Wang et al., 2022), Direct Positive Relationship: The results show that employee innovative behavior has a positive and direct relationship with workplace well-being. Mediator Role: The study found that employee innovative behavior also has a positive relationship with workplace well-being through leader support for innovation. This suggests that leader support acts as a mediator in this relationship. (Ranihusna et al., 2021), Influence of Organizational Learning: The results show that organizational learning has a significant influence on innovative work behavior. This suggests that an environment that supports learning can foster innovation among employees. Perceived Organizational Support: The study found that perceived organizational support did not have a significant influence on innovative work behavior, suggesting that this factor may not be strong enough to directly influence innovation. (Mandl, 2019), Patterns of Innovation Diffusion: Rogers showed that the adoption of innovations follows a predictable and sequential pattern, with each group having different characteristics and behaviors in adopting innovations. Perception of Innovation: He also identified factors that influence adoption, including relative merit, compatibility, complexity, observability, and the ability to try an innovation. (Bolden, 2011), Growth of Interest in DL: The results show that distributed leadership has experienced rapid growth in interest since 2000, particularly in the context of school education, with greater interest from academics in the UK compared to the US. (Helland et al., 2020), Relationship between Empowering Leadership and Job Engagement: The results showed that empowering leadership was positively related to academics' job engagement through job characteristics, including job autonomy, social community at work, and unreasonable tasks. Effect of Recognition: Although empowering leadership was also related to recognition, recognition was not directly related to job engagement, indicating that not all job characteristics have the same effect.

Previous studies, however, face several weaknesses that create significant research gaps. First, the lack of empirical evidence from testing the relationship between the discussed factors and employee innovative behavior makes it difficult to identify causal relationships. The cross-sectional design used does not allow for analysis of change over time, so longitudinal research is needed to understand the dynamics of this relationship on the construct of wellbeing. Principal leadership is critical to educational effectiveness, especially in the context of decentralization. Principals need to lead with autonomy, giving teachers the freedom to be involved in decision-making, thus creating a positive work climate. In addition, teachers as learning leaders have a key role in the educational process. The importance of educational leadership includes the use of technology, encouraging students' creative ideas, and creating an interactive learning atmosphere. In this context, research in Public Junior High Schools throughout Kediri Regency aims to explore the factors that influence the innovative behavior of civil servant teachers, to improve the quality of education in the region.

Work Self-Efficacy (X1) in education encompasses teachers' confidence in completing tasks and their belief in overcoming challenges, which contributes to teaching effectiveness. Empowering Leadership (X2) focuses on good delegation and communication, giving teachers space to grow and contribute. Wellbeing (M) encompasses work, career, and school well-being, which is essential to

creating a healthy educational environment. All of these factors drive Innovative Work Behavior (Y), including idea generation, idea implementation, and support for new ideas, thus improving the quality of learning and innovation in schools. The combination of these elements can drive positive changes in the educational process.

This study aims to explore the influence of empowering leadership on the innovative behavior of certified civil servant teachers in junior high schools throughout Kediri Regency, by examining the mediating role of Work Self-Efficacy and its interaction with Wellbeing. The results are expected to provide new insights into the factors that influence innovation in the context of education. This study provides an in-depth understanding of the relationship between leadership, self-efficacy, and innovative behavior among teachers, helping to improve leadership practices in education.

## 2. Research Methodology

### 2.1. Design

This study uses a quantitative approach with a survey design with a moderation model. Moderation in SmartPLS is an approach used to explore how the relationship between independent variables (X) and dependent variables (Y) can be influenced by moderator variables (Z). Moderator variables are variables that can strengthen, weaken, or even reverse the relationship between X and Y. In the context of research, moderation modeling can provide deeper insight into the dynamics between variables, helping researchers understand when and under what conditions the relationship applies. The survey was conducted to collect data through questionnaires distributed to civil servant teachers of SMP Negeri (Sembiring & Rahayu, 2020). This design was chosen to collect data from a large number of respondents and analyze the relationship between variables statistically. (Hanaysha, 2016).

### 2.2. Population and Sampling

The study population consisted of 2,115 certified civil servant teachers at SMP Negeri Kediri Regency. This geographical focus is important to produce specific and relevant data, so that it can provide in-depth insight into the factors that influence teacher work innovation in the area. This regional limitation supports a more accurate and contextual analysis. The sample size used is the slovin method with a margin of error of 0.075 because of the contextual location of the study. The number of samples using the following slovin method (Dhamara et al., 2022; Latipah et al., 2021; Saliman et al., 2023):

$$n = \frac{N}{1 + Ne^2} = \frac{2115}{1 + 2115 \cdot 0.075^2} = 163,993 \text{ rounded up to } 165 \text{ respondents for the research sample.}$$

### 2.3. Procedures and Data Collection

The procedure and data collection of part I of this study focused on Work Self-Efficacy (X1), which was measured through four questions referred to from the study. (Arrieta-Bartolomé et al., 2022; Khan et al., 2023; Sofiah & Kurniawan, 2019). Next, Part II examines Empowering Leadership (X2) with five questions covering aspects of delegation and communication, based on references. (Jabber et al., 2023; R et al., 2021). In Section III, Wellbeing (M) is measured through six questions covering work, career, and school well-being. Finally, Section IV assesses Innovative Work Behavior (Y) through three questions focusing on idea generation and implementation. Each question uses a 5-point Likert scale, ranging from “Strongly Disagree” to “Strongly Agree,” to provide nuance in respondents’ assessments.

### 2.4. Operational Variables

In this study, operational variables were identified to measure the influence between Work Self-Efficacy, Empowering Leadership, Wellbeing, and Innovative Work Behavior. Table 1 presents the constructs, construct items, question items, item codes, and related references. For Work Self-Efficacy (X1), there are four items that focus on self-confidence in completing tasks. Empowering Leadership (X2) includes five items related to delegation and communication. Wellbeing (M) consists of six items that evaluate work, career, and school well-being. While Innovative Work Behavior (Y) is measured by three items that cover the generation and implementation of ideas (Table 1).

**Table 1.**  
Operational variables

No	Construct	Construct items	Question items	Item code	Reference
1	Work Self-efficacy (X1)	1. Confidence in Completing tasks. 2. Confidence in the Ability to Overcome Challenges.	4 grains	1. WSE1 – WSE2 2. WSE3-WSE4	(Arrieta-Bartolomé et al., 2022; Khan et al., 2023; Sofiah & Kurniawan, 2019)
2	Empowering leadership (X2)	1. Delegation 2. Communication	5 grains	1. EL1 – EL3 2. EL4 – EL5	(Jabber et al., 2023; R et al., 2021)
3	Wellbeing (M)	1. Work welfare 2. Career well-being 3. School welfare	6 grains	1. W1-W2 2. W3-W4 3. W5-W6	(Pizzolante et al., 2023)
4	Innovative work behavior (Y)	1. Idea Generation 2. Implementation of Ideas 3. Supporting ideas	3 grains	1. IWB1 2. IWB2 3. IWB3	(Alzoraiki et al., 2023; Zhang & Bluysen, 2021)

### 2.5. Research Procedures

Testing data quality in the context of research involving Civil Servant Teachers in Public Junior High Schools throughout Kediri Regency is an important step in the analysis using Smart PLS. Validity is tested using the Pearson Correlation value which must be greater than 0.138, referring to 400 (Alagarsamy & Mehroliya, 2023; Dzandu et al., 2022). In this case, data validity will help ensure that the research instruments used to measure factors such as empowering leadership, work self-efficacy, and innovative behavior have produced accurate data. The reliability of the variables is tested through the Cronbach Alpha value, which should be more than 0.400 according to the standards set by (Cardoso et al., 2022; Damberg, 2023). Convergent validity and Average Variance Extracted (AVE) testing are more than 0.500 and 0.400 respectively. (Avkiran & Ringle, 2018; Serdar, 2019), it is also important to ensure that the measurement instrument is able to capture important dimensions that influence innovation among teachers.

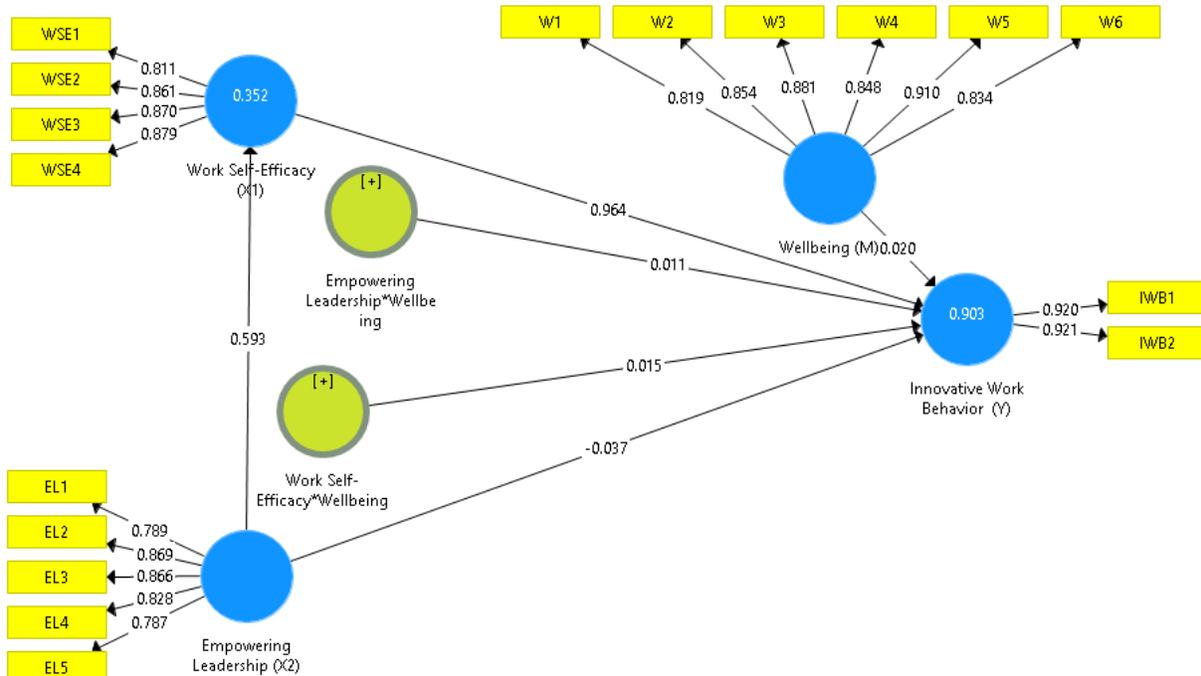
Discriminant validity testing with a composite reliability value of more than 0.700 (McLean et al., 2023), will help distinguish variables in the research model, such as the influence of wellbeing on teachers' innovative behavior. In addition, testing the inner model with an R-Square value above 0.450 (Sachs et al., 2022), will show how well the model can explain the variance of innovative behavior among civil servant teachers in junior high schools. The process of testing the hypothesis with a T-table criterion of more than 1.96 is crucial to ensure the significance of the analysis results. Thus, the results obtained can provide a deeper understanding of the factors that drive innovation in teaching in educational environments. Determining the effect size will also provide insight into how much influence empowering leadership has on work self-efficacy and innovative behavior. The design of the relationship between variables that has been corrected can prove that the alternative hypothesis is accepted, so that the results of this study are expected to provide appropriate recommendations for education managers in Kediri Regency (Alemu, 2023; Huang et al., 2022). In particular, these recommendations can be directed to improve the loyalty and motivation of civil servant teachers in developing innovative teaching practices. This research not only contributes to the development of science but also provides practical benefits that can be implemented in the SMP Negeri environment, thus creating a more productive and innovative learning atmosphere. (Alzoraiki et al., 2023; Owan et al., 2022).

### 3. Results and Discussion

#### 3.1. Results

##### 3.1.1. Outer Model

Based on the results of data analysis, empowering leadership (EL) shows a strong relationship with wellbeing and innovative work behavior (IWB). Empowering Leadership is measured through five indicators (EL1-EL5), with high factor coefficients (0.789 to 0.869), indicating that leaders who empower employees are able to improve wellbeing and innovative work behavior. The interaction coefficient between Empowering Leadership and Wellbeing is also quite high (1.165), indicating that wellbeing acts as a mediator that strengthens the relationship between Empowering Leadership and IWB.



**Figure 1.**  
Outer loading.

In addition, Work Self-Efficacy (WSE), or employee self-confidence in work ability, also has a strong coefficient (0.811 to 0.879). This shows that employees who have a high level of self-efficacy tend to be more able to adapt to innovative tasks. The interaction between Work Self-Efficacy and Wellbeing (1.112) shows that well-being plays an important role in increasing work effectiveness through self-efficacy (Table 2).

**Table 2.**  
Outer loading.

	Empowering leadership (X2)	Empowering leadership* Wellbeing	Innovative work behavior (Y)	Wellbeing (M)	Work self-efficacy (X1)	Work self-efficacy* Wellbeing
EL1	0.789					
EL2	0.869					
EL3	0.866					
EL4	0.828					
EL5	0.787					
Empowering leadership (X2) * Wellbeing (M)		1.165				
IWB1			0.920			
IWB2			0.921			
W1				0.819		
W2				0.854		
W3				0.881		
W4				0.848		
W5				0.910		
W6				0.834		
WSE1					0.811	
WSE2					0.861	
WSE3					0.870	
WSE4					0.879	
Work self-efficacy (X1) * Wellbeing (M)						1.112

The indicators for Innovative Work Behavior (IWB1 and IWB2) have very high coefficients (0.920 and 0.921), indicating that well-being and empowering leadership significantly influence employee innovative behavior. Well-being, measured through six indicators (W1-W6), has strong coefficients (0.819 to 0.910), confirming its role as a key mediator in this relationship (Table 2).

The Cronbach's Alpha, rho\_A, Composite Reliability, and Average Variance Extracted (AVE) values indicate the internal consistency and construct validity of the variables in this study. Empowering Leadership (X2) has a Cronbach's Alpha value of 0.886, indicating good reliability (Table 3). The Composite Reliability value of 0.916 indicates that this construct is consistent in measurement. The AVE value of 0.686 indicates that more than 68.6% of the indicator variance is explained by the Empowering Leadership construct. The interaction between Empowering Leadership and Wellbeing shows a perfect value (1,000) in all reliability indicators, indicating a very accurate measurement. Innovative Work Behavior (Y) shows good reliability with a Cronbach's Alpha of 0.821 and a Composite Reliability of 0.918.

**Table 3.**  
Average variance extracted (AVE).

	<b>Cronbach's alpha</b>	<b>rho_A</b>	<b>Composite reliability</b>	<b>Average variance extracted (AVE)</b>
Empowering leadership (X2)	0.886	0.891	0.916	0.686
Empowering leadership*wellbeing	1,000	1,000	1,000	1,000
Innovative work behavior (Y)	0.821	0.821	0.918	0.848
Wellbeing (M)	0.928	0.935	0.944	0.736
Work self-efficacy (X1)	0.878	0.889	0.916	0.732
Work self-efficacy*wellbeing	1,000	1,000	1,000	1,000

The AVE value of 0.848 indicates that almost 85% of the indicator variance is explained by this variable, indicating strong convergent validity. Wellbeing (M) also has very high reliability with Cronbach's Alpha of 0.928 and Composite Reliability of 0.944, and an AVE value of 0.736, indicating very good construct validity. For Work Self-Efficacy (X1), the Cronbach's Alpha value of 0.878 and Composite Reliability of 0.916 indicate high reliability, with an AVE of 0.732, strengthening the construct validity (Table 3).

Discriminant analysis using Heterotrait-Monotrait Ratio (HTMT) aims to assess the discriminant validity between the variables used in the research model. Discriminant validity indicates the extent to which a construct is truly different from other constructs in the measurement of the variables used. Empowering Leadership (X2) has a diagonal value of 0.828, which is the square root of the Average Variance Extracted (AVE) and indicates that this construct has good discriminant validity. The correlation value of Empowering Leadership with other variables, such as Innovative Work Behavior (Y) (0.546) and Wellbeing (M) (0.614), is within acceptable limits, indicating that this construct is different from the others (Table 4).

**Table 4.**  
Discriminant validation.

	<b>Empowering leadership (X2)</b>	<b>Empowering leadership* wellbeing</b>	<b>Innovative work behavior (Y)</b>	<b>Wellbeing (M)</b>	<b>Work self-efficacy (X1)</b>	<b>Work self-efficacy* wellbeing</b>
Empowering leadership (X2)	0.828					
Empowering leadership* wellbeing	0.005	1,000				
Innovative work behavior (Y)	0.546	0.005	0.921			
Wellbeing (M)	0.614	0.089	0.364	0.858		
Work self-efficacy (X1)	0.593	-0.021	0.949	0.380	0.856	
Work Self-Efficacy*wellbeing	-0.022	0.687	0.068	-0.016	0.043	1,000

The interaction between Empowering Leadership and Wellbeing shows a discriminant value of 1.000, indicating that this interaction has perfect validity. Its correlation with other variables is very small, such as with Innovative Work Behavior (0.005), and this value indicates that the interaction between Empowering Leadership and Wellbeing does not have a significant relationship with other constructs, so its discriminant validity is very strong. Innovative Work Behavior (Y) has a diagonal value of 0.921, indicating high discriminant validity. The correlation with Work Self-Efficacy (X1) (0.949) is quite high, indicating a close relationship between innovative work behavior and self-efficacy, although these two constructs can still be clearly distinguished. Wellbeing (M) has good discriminant

validity with a diagonal value of 0.858. Its correlation with Work Self-Efficacy (0.380) and Empowering Leadership (0.614) shows a significant positive relationship, but still maintains the differences between constructs. Work Self-Efficacy (X1) also has good discriminant validity with a diagonal value of 0.856. Its correlation with Wellbeing and Innovative Work Behavior shows that self-efficacy plays an important role in supporting innovative behavior and employee well-being (Table 4).

3.1.2. Inner Model

In this sub-chapter, the Inner model tests the relationship between latent constructs in the structural model. The evaluation of the inner model includes path coefficients, R-square values, and relevance predictions, to assess the strength and direction of the relationship between variables, ensuring the model has good predictability and accuracy in the study (Figure 2).

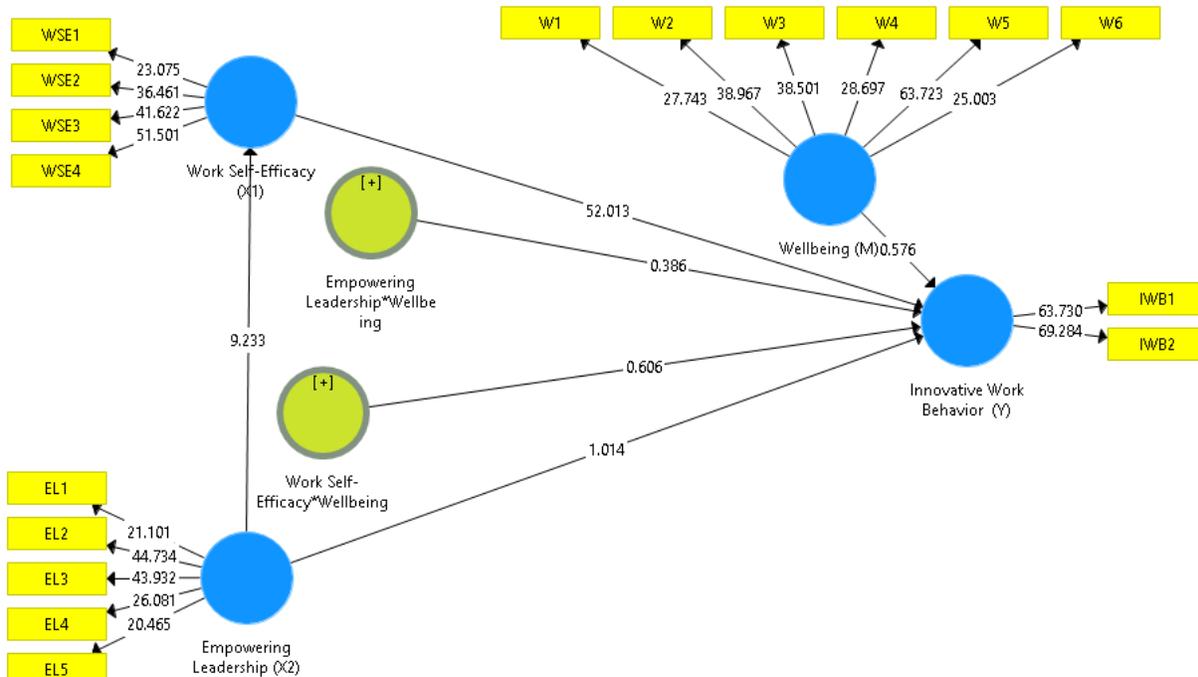


Figure 2. Inner model.

R Square is used to measure how much the independent variables explain the dependent variable in a research model. In this context, Innovative Work Behavior (Y) and Work Self-Efficacy (X1) are dependent variables explained by several independent variables, such as Empowering Leadership and Wellbeing. Innovative Work Behavior (Y) has an R Square value of 0.903 and an Adjusted R Square of 0.900. This means that 90.3% of the variation in innovative work behavior can be explained by the independent variables in the model. The Adjusted R Square value that is close to the original R Square value (0.900) indicates that this model is very strong and stable, with a slight decrease in explanation when taking into account the number of variables used in the model. Based on this figure, the contribution of independent variables to Innovative Work Behavior is very high. This shows that factors such as Empowering Leadership, Wellbeing, and Work Self-Efficacy significantly contribute to increasing innovative behavior in the workplace (Table 5).

**Table 5.**  
R square.

	<b>R square</b>	<b>R square adjusted</b>	<b>Decision</b>
Innovative work behavior (Y)	0.903	0.900	High contribution
Work self-efficacy (X1)	0.352	0.348	Sufficient contribution

Work Self-Efficacy (X1) has an R Square value of 0.352 and an Adjusted R Square of 0.348. This indicates that 35.2% of the variation in Work Self-Efficacy can be explained by the independent variables in the model. Although this contribution is quite significant, the lower R Square value compared to Innovative Work Behavior suggests that there are other factors that may contribute to employee self-efficacy that are not included in this model. With an Adjusted R Square that is only slightly lower (0.348), this model still provides a fairly stable explanation of the factors that influence self-efficacy, but the contribution of the independent variables to this variable is only sufficient (Table 5).

Interaction test between several variables such as Empowering Leadership (X2), Wellbeing (M), and Work Self-Efficacy (X1) on Innovative Work Behavior (Y). Based on the table provided, there are several important things that can be explained regarding the relationship between variables and their impact on innovative work behavior and employee well-being. Empowering Leadership (X2) shows a significant positive correlation with Work Self-Efficacy (X1), with a coefficient value of 0.542. This shows that empowering leadership has a significant impact on increasing employee self-efficacy. When leaders give more trust and autonomy to employees, this increases confidence in their work ability. The interaction between Empowering Leadership and Wellbeing has a very low value, namely 0.001, which indicates that the combined effect of empowering leadership and wellbeing on other variables, such as Innovative Work Behavior, is not significant. This indicates that although both are important individually, this interaction effect is not strong enough to significantly influence innovative behavior (Table 6).

**Table 6.**  
F square.

	<b>Empowering leadership (X2)</b>	<b>Empowering leadership*wellbeing</b>	<b>Innovative work behavior (Y)</b>	<b>Wellbeing (M)</b>	<b>Work self-efficacy (X1)</b>
Empowering leadership (X2)			0.007		0.542
Empowering leadership*wellbeing			0.001		
Innovative work behavior (Y)					
Wellbeing (M)			0.002		
Work self-efficacy (X1)			6,088		
Work self-efficacy*wellbeing			0.002		

Work Self-Efficacy (X1) has a very strong impact on Innovative Work Behavior (Y) with a coefficient of 6.088, indicating that employees' beliefs in their abilities play a very significant role in generating innovative behavior. This confirms that the higher a person's self-efficacy, the greater their tendency to engage in innovative work behavior. The interaction between Work Self-Efficacy and Wellbeing shows a very small value, which is 0.002, which is similar to the previous interaction. This indicates that the combined effect of self-efficacy and wellbeing on other variables in this model is also insignificant (Table 6).

The SRMR (Standardized Root Mean Square Residual) and d\_ULS (Squared Euclidean Distance) values are used to assess the model fit. The SRMR (Standardized Root Mean Square Residual) in the Saturated Model and Estimated Model have the same value, which is 0.071. SRMR is used to measure the difference between the observed correlation matrix and that predicted by the model. An SRMR value smaller than 0.08 indicates a good model fit. In this case, a value of 0.071 indicates that the estimated model has a good fit with the data, because the SRMR value is below the acceptable limit (Table 7).

**Table 7.**  
Estimated model.

	Saturated model	Estimated model
SRMR	0.071	0.071
d_ULS	0.762	0.763

d\_ULS (Squared Euclidean Distance) in Saturated Model and Estimated Model are 0.762 and 0.763 respectively. The d\_ULS value is used to evaluate the model differences based on Euclidean distance. The small difference between Saturated Model (unconstrained model) and Estimated Model (estimated model with certain parameters) indicates that the estimated model has a very similar fit to the unconstrained model (Table 7).

### 3.1.3. Hypothesis Testing

The path analysis conducted showed a complex relationship between Empowering Leadership (X<sub>2</sub>), Work Self-Efficacy (X<sub>1</sub>), Wellbeing (M), and Innovative Work Behavior (Y). The results of the study indicated that Empowering Leadership has a significant positive influence on Work Self-Efficacy with an Original Sample value of 0.593 and T-Statistics of 9.233 (P Values 0.000), indicating that the alternative hypothesis is accepted. This means that leaders who empower employees can increase their self-confidence in carrying out tasks, which is an important factor for performance (Table 8).

**Table 8.**  
Hypothesis testing.

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T Statistics ( O/STDEV )	P values	Decision
Empowering leadership (X <sub>2</sub> ) -> Innovative work behavior (Y)	-0.037	-0.040	0.037	1,014	0.311	Alternative hypothesis is rejected
Empowering leadership (X <sub>2</sub> ) -> Work Self-efficacy (X <sub>1</sub> )	0.593	0.594	0.064	9.233	0.000	Alternative hypothesis is accepted
Empowering leadership*Wellbeing -> Innovative work behavior (Y)	0.011	0.012	0.027	0.386	0.700	Alternative hypothesis is rejected
Wellbeing (M) -> Innovative work behavior (Y)	0.020	0.021	0.034	0.576	0.565	Alternative hypothesis is rejected
Work self-efficacy (X <sub>1</sub> ) -> Innovative work behavior (Y)	0.964	0.966	0.019	52,013	0.000	Alternative hypothesis is accepted
Work self-	0.015	0.014	0.025	0.606	0.545	Alternative

efficacy*Wellbeing - > Innovative work behavior (Y)						hypothesis is rejected
Empowering leadership (X2) -> Work self-efficacy (X1) -> Innovative work behavior (Y)	0.571	0.575	0.065	8,746	0.000	Alternative hypothesis is accepted

However, the direct relationship between Empowering Leadership and Innovative Work Behavior is not significant, with Original Sample  $-0.037$  and T-Statistics  $1.014$  (P Values  $0.311$ ), indicating that the influence of leadership is indirect on innovative behavior. Meanwhile, Work Self-Efficacy shows a very strong influence on Innovative Work Behavior with Original Sample values of  $0.964$  and T-Statistics  $52.013$  (P Values  $0.000$ ), indicating that employees who feel confident in their abilities have a higher tendency to behave innovatively. The interaction between Empowering Leadership and Wellbeing on Innovative Work Behavior is also not significant with Original Sample  $0.011$  and T-Statistics  $0.386$  (P Values  $0.700$ ), indicating that well-being in this context does not strengthen the influence of leadership on innovation. Likewise, the relationship between Wellbeing and Innovative Work Behavior has an Original Sample value of  $0.020$  and T-Statistics of  $0.576$  (P Values  $0.565$ ), indicating no significant impact. On the other hand, the mediation between Work Self-Efficacy and Innovative Work Behavior shows significant results with Original Sample values of  $0.571$  and T-Statistics of  $8.746$  (P Values  $0.000$ ), indicating that Work Self-Efficacy plays an important role in bridging the relationship between Empowering Leadership and Innovative Work Behavior. These results imply that although empowering leadership can increase employee self-confidence, the direct impact on innovation is not realized without such confidence. Well-being does not contribute significantly to this interaction, so it is important to focus on developing Work Self-Efficacy in leadership strategies to increase innovation. Overall, the analysis shows that Empowering Leadership acts as a driver that increases Work Self-Efficacy, which in turn significantly drives Innovative Work Behavior, while well-being does not show a significant relationship in this context. This study emphasizes the importance of psychological aspects such as self-efficacy in developing an innovative culture in the workplace, so organizations should pay more attention to empowering leadership to optimize employees' potential to innovate.

#### 4. Discussion

In path analysis and structural models, the evaluation of the relationship between variables is done by looking at the Original Sample (O), Sample Mean (M), Standard Deviation (STDEV), T-Statistics ( $|O/STDEV|$ ), and P Values. These results determine whether the alternative hypothesis is accepted or rejected. The following is a detailed explanation of each relationship in the model.

##### 4.1. Empowering Leadership (X2) -> Innovative Work Behavior (Y)

In this path, the Original Sample (O) shows a value of  $-0.037$ , which means that there is a negative influence of Empowering Leadership on Innovative Work Behavior. However, the T-Statistics value is only  $1.014$  and the P Values are  $0.311$ . In statistical analysis, T-Statistics values below  $1.96$  indicate that the influence is not statistically significant, and P Values above  $0.05$  indicate that the alternative hypothesis is rejected. This means that Empowering Leadership does not have a significant impact on innovative behavior in this context. This result may be surprising, considering that theory often states that empowering leadership can increase creativity and innovation in the same direction. However, there may be other variables or certain contexts that reduce this impact.

##### 4.2. Empowering Leadership (X2) -> Work Self-Efficacy (X1)

The relationship between Empowering Leadership and Work Self-Efficacy shows very strong results. The Original Sample value is  $0.593$ , indicating a significant positive effect. The T-Statistics

value of 9.233 is far above 1.96, and the P Value of 0.000 indicates that the alternative hypothesis is accepted. This means that Empowering Leadership significantly increases Work Self-Efficacy. This is in line with the theory that empowering leadership gives employees greater confidence in their own abilities, which in turn increases self-efficacy. When leaders provide autonomy and support to employees, they feel more capable of handling work tasks effectively.

#### 4.3. *Empowering Leadership\*Wellbeing -> Innovative Work Behavior (Y)*

The interaction relationship between Empowering Leadership and Wellbeing on Innovative Work Behavior shows insignificant results. The Original Sample value is 0.011, with T-Statistics of 0.386 and P Values of 0.700. This indicates that the alternative hypothesis is rejected, meaning that the interaction between empowering leadership and wellbeing does not have a significant impact on innovative work behavior. This result can be interpreted that although employee wellbeing and empowering leadership are individually important, their combined effect on innovation is not as strong as expected.

#### 4.4. *Wellbeing (M) -> Innovative Work Behavior (Y)*

The direct effect of Wellbeing on Innovative Work Behavior is also not significant, with an Original Sample value of 0.020, T-Statistics of 0.576, and P Values of 0.565. The alternative hypothesis is rejected, indicating that employee wellbeing does not directly contribute to innovative behavior in this model. This may indicate that although wellbeing is important for employee quality of life, other variables that are more directly related to work, such as self-efficacy or leadership, have a greater impact on innovation.

#### 4.5. *Work Self-Efficacy (X1) -> Innovative Work Behavior (Y)*

This relationship shows a very significant result with an Original Sample value of 0.964, T-Statistics of 52.013, and P Values of 0.000. This means that the alternative hypothesis is accepted, and Work Self-Efficacy has a very strong influence on Innovative Work Behavior. Employees who believe in their ability to complete tasks effectively tend to be more courageous and creative in innovating at work. This result is in accordance with motivation theory, where high self-efficacy can increase initiative, creativity, and innovative performance.

#### 4.6. *Work Self-Efficacy\*Wellbeing -> Innovative Work Behavior (Y)*

The interaction between Work Self-Efficacy and Wellbeing on Innovative Work Behavior is not significant, with an Original Sample value of 0.015, T-Statistics of 0.606, and P Values of 0.545. The alternative hypothesis is rejected, indicating that the combination of self-efficacy and wellbeing does not have a significant impact on innovation. Although self-efficacy individually greatly influences innovation, wellbeing does not seem to add significant influence in this context.

#### 4.7. *Empowering Leadership (X2) -> Work Self-Efficacy (X1) -> Innovative Work Behavior (Y)*

This mediation path shows significant results, with an Original Sample value of 0.571, T-Statistics of 8.746, and P Values of 0.000. This indicates that Work Self-Efficacy significantly mediates the relationship between Empowering Leadership and Innovative Work Behavior. This means that although Empowering Leadership does not directly affect innovative behavior, its influence on Work Self-Efficacy plays an important role in encouraging innovative behavior. Employees who feel empowered by their leaders will experience increased self-efficacy, which then makes them more likely to engage in innovation in the workplace.

## 5. Conclusion and Suggestions

This study found that Empowering Leadership (X2), Work Self-Efficacy (X1), Wellbeing (M), and Innovative Work Behavior (Y) showed that Empowering Leadership did not have a significant effect on Innovative Work Behavior ( $O = -0.037$ ;  $T = 1.014$ ;  $P = 0.311$ ), while the relationship with Work Self-Efficacy showed a strong positive effect ( $O = 0.593$ ;  $T = 9.233$ ;  $P = 0.000$ ). The interaction between Empowering Leadership and Wellbeing was also not significant ( $O = 0.011$ ;  $T = 0.386$ ;  $P = 0.700$ ), and

the direct impact of Wellbeing on innovation was not seen ( $O = 0.020$ ;  $T = 0.576$ ;  $P = 0.565$ ). In contrast, Work Self-Efficacy significantly influences Innovative Work Behavior ( $O = 0.964$ ;  $T = 52.013$ ;  $P = 0.000$ ), confirming the importance of self-confidence in driving creativity. The interaction between Work Self-Efficacy and Wellbeing was also not significant ( $O = 0.015$ ;  $T = 0.606$ ;  $P = 0.545$ ). However, the mediation path showed that Work Self-Efficacy significantly mediated the relationship between Empowering Leadership and Innovative Work Behavior ( $O = 0.571$ ;  $T = 8.746$ ;  $P = 0.000$ ), indicating the importance of empowering leadership in enhancing innovation through increasing self-efficacy.

The implications of this study suggest that to enhance innovative behavior among civil servant teachers of junior high schools in Kediri Regency, focus needs to be given to developing Work Self-Efficacy through empowering leadership. By increasing teachers' self-efficacy, they are more likely to innovate in their teaching and classroom practices. Future research could explore other factors that may influence this relationship, such as organizational culture, intrinsic motivation, and peer support. Further research locations among civil servant teachers of junior high schools throughout Kediri Regency would provide valuable insights into these dynamics and how to enhance innovation in educational settings.

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