GIJTM
Greenation International Journal of Tourism and Management
+62 81210467572 https://research.e-greenation.org/GIJTM greenation.info@gmail.com
GREENATION RESEARCH

DOI: https://doi.org/10.38035/gijtm.v3i2

Enhancing Teachers' Innovative Behavior: The Interaction Between Knowledge Sharing And Creative Work Climate

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Abstract: This study investigates the impact of knowledge sharing and a creative work climate on teachers' innovative behavior in Cirebon, Indonesia. Using a quantitative approach through survey methods, data were collected from 122 teachers selected using Stratified Random Sampling to ensure accurate sample representation. The results show that knowledge sharing is the strongest predictor of teachers' innovative behavior, indicating that teachers who actively exchange ideas and teaching strategies are more likely to adopt innovative teaching methods. Additionally, the creative work climate also positively influences teacher innovation, although the effect is moderate, suggesting the presence of other contextual factors. These findings highlight the urgency of building a collaborative and supportive school environment for creativity to enhance teachers' innovation capacity. The practical implications of this research are expected to serve as a guide for policymakers and school administrators in designing strategies that encourage a culture of knowledge sharing and creativity-based professional development among educators.

Keyword: Teachers' Innovative Behavior, Knowledge Sharing, Creative Work Climate, Professional Development, Educators.

INTRODUCTION

In an era of rapid globalization, the education sector is facing increasingly complex challenges in creating learning environments that are relevant, innovative, and responsive to 21st-century demands. Educators, as the primary facilitators of the learning process, play a crucial role in establishing classroom environments that not only actively engage students but also encourage critical thinking, collaboration, and creativity (Kuril et al., 2023). However, fulfilling this role optimally requires a high level of creativity and sustained innovation, which is difficult to achieve without the support of a conducive work environment (Crossan, 1996).

Previous studies have shown that a creative climate in the workplace acts as a vital driver for individual innovative behavior (Munir & Beh, 2019). A creative climate is defined as an individual's perception of how much their work environment supports the exploration of new ideas and the implementation of innovation (Salam & Senin, 2022). Furthermore, the practice of knowledge sharing has been recognized as a key factor in enhancing collaboration,

broadening professional perspectives, and facilitating creative solutions to various teaching and learning problems (Purc & Lagun, 2019). These two factors—creative climate and knowledge sharing—are considered strategic drivers for promoting innovative behavior among professionals, including educators (Stanikzai, 2023).

Despite its significance, research integrating both creative climate and knowledge sharing in the context of education remains limited (Parhamnia et al., 2022). Most previous studies have focused on the industrial and business sectors, overlooking the unique characteristics of the teaching profession (Slåtten et al., 2011). Educators are expected not only to innovate pedagogically but also to facilitate professional collaboration among peers to enhance teaching effectiveness (Bantha & Nayak, 2020). Moreover, the synergistic effects of creative climate and knowledge sharing on teachers' innovative behavior have not been deeply explored, especially within the educational context of Cirebon City.

Addressing this research gap, the present study aims to investigate the influence of creative climate and knowledge sharing on teachers' innovative behavior (Singh & Sarkar, 2019). Specifically, it seeks to examine the relationship between these two factors and their potential to create an environment that fosters educational innovation. The findings are expected to make theoretical contributions by enriching existing knowledge regarding the role of creative climate and knowledge sharing in driving innovative behavior (Jun & Lee, 2023; Vandavasi et al., 2020). In practical terms, this study aims to provide valuable insights for policymakers and educational institutions in developing strategies and initiatives that promote a supportive and conducive work environment for educators' innovation (Alajmi & Al-Qallaf, 2022).

METHOD

This section outlines the methodology, design, and instruments used to effectively achieve the research objectives. To evaluate the proposed hypotheses, the study adopted a quantitative method by collecting data through a survey. The practical context and framework of the study are described below.

Indonesia has more than 222,526 schools across various levels of education, including both public and private institutions (Data Pokok Pendidikan). The Indonesian education system consists of several stages, from basic to higher education. This study focuses on teachers from elementary to senior high schools in Cirebon City, an urban area experiencing rapid development in both the education and economic sectors. The city has more than 500 schools spread across five districts, with a total of 8,502 teachers including those in kindergartens.

This study employed a quantitative research framework with a cross-sectional survey method. The quantitative method was chosen to ensure systematic measurement of variables and to establish the relationships between creative climate, knowledge sharing, and innovative behavior. As previously mentioned, the survey was conducted in 12 schools in Cirebon City, consisting of 10 public schools and 2 private schools. The study focused on individual behavior in knowledge sharing, the creative climate in schools, and teachers' innovative behavior. Teachers were given extra time during their breaks to complete the questionnaire. A total of 122 responses were collected, with only valid data included in the analysis. The study utilized the Stratified Random Sampling method, considering levels of education and school types (public or private). Respondents answered questions regarding the creative climate at their schools, their knowledge sharing practices, and their innovative behavior. In addition, demographic data were collected for further statistical analysis.

The questionnaire was initially designed in English and adapted from well-established instruments: Karatepe et al. (2020) for creative climate, De Vries, Van den Hooff, and De Ridder (2006) for knowledge sharing, and Hansen & Pihl-Thingvad (2019) for innovative

behavior. To ensure semantic accuracy and appropriate translation, the questionnaire was translated into Indonesian using a back-translation process (Douglas & Craig, 2007). Any discrepancies between the two versions were reviewed and adjusted accordingly to ensure clarity and understanding for the respondents.

The research variables were measured using previously validated scales. Creative Climate: Measured using an eight-item scale developed by Karatepe & Vatankhah (2014). Knowledge Sharing: Measured using a seven-item scale adapted from De Vries, Van den Hooff, and De Ridder (2006). Innovative Behavior: Assessed using a six-item scale by Hansen and Pihl-Thingvad (2019). All scales were rated using a five-point Likert scale, ranging from strongly disagree to strongly agree.

The research population includes all teachers in Cirebon City, encompassing both public and private educational institutions. Sampling Technique: The Stratified Random Sampling method was employed to ensure representation across various types of schools, educational levels, and teaching specializations. Sample Size: The determination of the sample size was based on Hair et al. (2019), with a target of 122 teachers participating in the survey.

RESULT AND DISCUSSION

This study involved 122 respondents who met the eligibility criteria for analysis. The data were analyzed and included the sociodemographic characteristics of the respondents. Based on gender, the majority of respondents were female (70.49%), while 29.51% were male. Regarding educational background, most participants held a bachelor's degree (91.80%), while 8.20% held a master's degree. Generationally, the respondents were dominated by Millennials (60.66%), followed by Generation X (33.61%) and Generation Z (5.74%). In terms of work experience, 36.07% had more than 16 years of experience, another 36.07% had between 1–5 years, while the remaining respondents had between 6–15 years of experience. Regarding employment status, 44.26% were Civil Servants (PNS), 35.25% were Government Employees with Work Agreements (PPPK), and 20.49% were honorary staff. Most respondents taught in public schools (83.61%), with 44.26% teaching at the elementary school level, 27.05% at junior high schools, and 28.69% at senior high schools.

Validity and Reliability Testing

This analysis aims to assess how well the indicators measure their respective constructs. The SmartPLS 3 software (Ringle et al., 2015) was used for data analysis. The results of the Outer Loadings showed that the factor loading values for 21 indicators ranged from 0.653 to 0.844. Indicators with loading values below 0.7 were further analyzed to determine whether they could still be retained based on the values of Average Variance Extracted (AVE) and Composite Reliability (CR).

Tabel 1. Tabel Outer Loadings

Constructs and Items	Loading
innovative behavior	
1. I generate new ideas to solve problems.	0.703
2. I am looking for new working methods, techniques or tools.	0.727
3. I provide original solutions to the problems we face.	0.706
4. I am good at getting support for innovative ideas.	0.728
5. I get "Key Figure" in my organization excited about innovative ideas.	0.747
6. I translate innovative ideas into valuable solutions.	0.821
7. I introduce innovative ideas systematically.	0.793
8. I evaluate the usefulness of innovative ideas.	0.789
Knowledge Sharing	
1. When I learn something new, I tell my coworkers about it.	0.762
2. I share the information I have with my coworkers.	0.685
3. I think it's important for my coworkers to know what I'm working on.	0.704
4. I regularly inform my coworkers about what I'm working on.	0.678
5. When I need certain knowledge, I ask my coworkers about it.	0.653
6. I enjoy getting information about what my coworkers know.	0.779
7. I ask my coworkers about their skills when I need to learn something.	0.711
8. When a coworker is good at something, I ask them to teach me how to do it.	0.729
Creative Climate	
1. This organization provides adequate resources for innovation.	0.827
2. This organization can be described as flexible and constantly adapting to change.	0.844
3. Here, people are allowed to try to solve the same problem in different ways.	0.742
4. The reward system here encourages the development of employees' creative ideas.	0.724
5. This organization openly recognizes those who are creative.	0.807

The model evaluation indicates strong reliability of the research instruments. The Composite Reliability (CR) values for all constructs ranged from 0.892 to 0.913, exceeding the minimum threshold of CR ≥ 0.7 (Hair et al., 2019). Additionally, the AVE values ranged from 0.510 to 0.625, surpassing the minimum threshold of 0.50 (Fornell & Larcker, 1981), indicating good convergent validity.

Tabel 2. Table of Construct Reliability and Validity

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Knowledge Sharing	0.862	0.892	0.510
Creative Climate	0.851	0.892	0.625
Innovative Behavior	0.890	0.913	0.567

The model fit indices indicate that the research model has an acceptable fit with the collected data. The fit indicators are SRMR = 0.077, d_ULS = 1.356, d_G = 0.545, and Chi-Square = 480.322, all of which meet the criteria for model fit (Henseler et al., 2015). However, the NFI value of 0.753 suggests room for improvement, as an NFI value below 0.90 indicates the need for further refinement.

Tabel 3. Tabel Model-Fit

	Saturated Model	Estimated Model
SRMR	0.077	0.077
d_ULS	1.356	1.356
d_G	0.545	0.545
Chi-Square	480.322	480.322

Tabel 4. Tabel T-Square

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values
CC-> IB	**0.440**	**0.445**	**0.078**	**5.606**	**0.000**
KS-> IB	**0.333**	**0.336**	**0.084**	**3.979**	**0.000**
KS & CC -> IB	**0.434**	**0.458**	**0.082**	**4.780**	**0.000**

Based on the table, the F^2 value for Knowledge Sharing on Innovative Behavior is 0.135, which falls into the moderate category as it ranges between 0.02 and 0.15 (Hair et al., 2017). Similarly, the F^2 value for Creative Climate on Innovative Behavior is 0.236, which is also classified as moderate as it falls between 0.15 and 0.35. In addition, the F^2 value for the combined effect of Creative Climate and Knowledge Sharing on Innovative Behavior is 0.195, which remains within the moderate classification. These findings indicate that all variables have a moderate impact on the endogenous variable of Innovative Behavior (IB), demonstrating their substantive contribution to the research model.

Tabel 5. Tabel F-Square

Relation	F^2 Value	Result
CC -> IB	0.236	Moderate
KS-> IB	0.135	Moderate
KS & CC -> IB	0.195	Moderate

Based on the results presented in the table, all hypotheses were supported with a significance level of $p < 0.001$. The standardized coefficients indicate a substantial positive impact of Creative Climate on Teachers' Innovative Behavior ($\gamma = 0.440$, $p < 0.001$) and Knowledge Sharing on Teachers' Innovative Behavior ($\gamma = 0.333$, $p < 0.001$). Furthermore, the combined effect of Creative Climate and Knowledge Sharing on Teachers' Innovative Behavior was also significant ($\gamma = 0.434$, $p < 0.001$). These findings confirm the positive influence of both variables in fostering innovation among teachers.

Tabel 6. Hasil Model Persamaan Struktural

	Hypothesis	Results	Remark
H1	Creative Climate has a direct positive effect on Teachers' Innovative Behavior.	Standardized coefficient = 0.440 T-statistics = 5.606 P- Value = 0.000	Supported
H2	Knowledge Sharing has a direct positive effect on Teachers' Innovative Behavior.	Standardized coefficient = 0.333 T-statistics = 3.979 P- Value = 0.000	Supported
H3	Creativity Climate and Knowledge Sharing simultanously has a direct positive effect on Teachers' Innovative Behavior.	Standardized coefficient = 0.434 T-statistics = 4.780 P- Value = 0.000	Supported

The findings from this study indicate that Creative Climate and Knowledge Sharing have a positive effect on Teachers' Innovative Behavior, both individually and

simultaneously. This suggests that the more conducive the creative environment and the more actively teachers engage in knowledge sharing, the higher their level of innovative behavior. These results are in line with the study by Karatepe et al.

In this research, it was found that the creative climate mediates the relationship between SEL (Social and Emotional Learning) and both managerial innovation and innovative behavior. Successful SEL practices can foster a creative climate, which in turn enhances managerial innovation and innovative behavior. Furthermore, this study supports the findings of Alajmi & Al-Qallaf (2022), which highlight the importance of interaction within learning communities, where active knowledge sharing enables teachers to develop pedagogical strategies, understand curricula, and effectively utilize instructional media.

Additionally, this study is consistent with the findings of Munir & Beh (2019), which indicate that an organization's creative climate significantly affects innovative work behavior, while knowledge sharing positively contributes to innovative behavior, albeit with a relatively low R-square value. Thus, this study reinforces empirical evidence that a supportive creative environment and a culture of knowledge sharing play a crucial role in fostering innovation in the education sector, particularly among teachers.

CONCLUSION

This study examined how Knowledge Sharing and Creative Work Climate influence Teachers' Innovative Behavior in Cirebon City. The main finding is that Knowledge Sharing is the most influential determinant of Innovative Behavior, highlighting that collaboration among teachers is essential for fostering innovation. Creative Work Climate also has a significant effect, though further improvement is needed to enhance its impact on innovation. To foster greater innovation in schools, an approach that integrates support for creativity with effective knowledge-sharing structures is essential.

Contribution to Knowledge

This study provides empirical evidence of the relationship between Knowledge Sharing, Creative Work Climate, and Innovative Behavior in the educational context. These findings may serve as a foundation for developing school policies that better support innovation in teaching and learning.

Directions for Future Research Future

Studies could explore moderating factors, such as leadership style or teacher autonomy, that may influence these relationships. Longitudinal research is recommended to examine how changes in school policies affect teacher innovation over time. Based on the results, several recommendations are proposed to enhance teachers' innovative behavior:

Enhancing Creative Work Climate in Schools:

Provide more opportunities for teachers to experiment with new teaching methods, reduce bureaucratic barriers that hinder the implementation of innovative ideas, and offer incentives or recognition for teachers who successfully apply innovative teaching strategies.

Encouraging Knowledge Sharing Among Teachers:

Establish regular forums or platforms for teachers to exchange experiences and teaching methods, organize workshops, seminars, or study groups to encourage collaboration among educators, and integrate technology into the knowledge-sharing process, such as through online learning portals.

Developing School Policies that Support Innovation:

Schools should adopt more flexible curriculum policies, allowing teachers to adapt teaching methods to student needs, and encourage school leadership to be more open to new ideas from teachers and actively support their implementation.

Future Research Directions:

Further studies may investigate the role of school leadership in promoting teacher innovation. Longitudinal studies could be conducted to examine how policy changes influence teacher innovation over the long term. Additional exploration of moderating factors, such as intrinsic teacher motivation or the impact of technology on knowledge sharing, may also be pursued.

By implementing these recommendations, educational innovation can be further developed, ultimately resulting in a positive impact on the quality of learning in schools.

REFERENCES

Aboramadan, M. (2021). Servant leadership and followers' creativity: does climate for creativity matter? *Evidence-Based HRM*, *9*(1). https://doi.org/10.1108/EBHRM-01-2020-0012

Afsar, B., Badir, Y., & Saeed, B. (2014). Transformational leadership and innovative work behavior. *Industrial Management and Data Systems*, *114*(8). https://doi.org/10.1108/IMDS-05-2014-0152

Alajmi, B. M., & Al-Qallaf, C. L. (2022). Fostering knowledge-sharing behavior through social capital: the implications of face-to-face and online interactions. *Global Knowledge, Memory and Communication*, *71*(4–5). https://doi.org/10.1108/GKMC-01-2021-0007

Amabile, T. M. (2012). *Componential Theory of Creativity*.

Bantha, T., & Nayak, U. (2020). The relation of workplace spirituality with employees' innovative work behaviour: the mediating role of psychological empowerment. *Journal of Indian Business Research*, *13*(2). https://doi.org/10.1108/JIBR-03-2020-0067

Cheng, S. T., Fung, H. H., & Chan, A. C. M. (2009). Self-Perception and Psychological Well-Being: The Benefits of Foreseeing a Worse Future. *Psychology and Aging*, *24*(3). https://doi.org/10.1037/a0016410

Crossan, M. M. (1996). The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation. *Journal of International Business Studies*, *27*(1). https://doi.org/10.1057/jibs.1996.13

De Vries, R. E., Van Den Hooff, B., & De Ridder, J. A. (2006). Explaining knowledge sharing: The role of team communication styles, job satisfaction, and performance beliefs. *Communication Research*, *33*(2). https://doi.org/10.1177/0093650205285366

Dixit, A., & Upadhyay, Y. (2021). Role of JD-R model in upticking innovative work behaviour among higher education faculty. *RAUSP Management Journal*, *56*(2). https://doi.org/10.1108/RAUSP-03-2020-0060

Douglas, S. P., & Craig, C. S. (2007). Collaborative and iterative translation: An alternative approach to back translation. In *Journal of International Marketing* (Vol. 15, Issue 1). https://doi.org/10.1509/jimk.15.1.030

Elidemir, S. N., Ozturen, A., & Bayighomog, S. W. (2020). Innovative behaviors, employee creativity, and sustainable competitive advantage: A moderated mediation. *Sustainability (Switzerland)*, *12*(8). https://doi.org/10.3390/SU12083295

Fornell, C., & Larcker, D. F. (1981). Structural Equation Models with Unobservable Variables and Measurement Error: Algebra and Statistics. *Journal of Marketing Research*, *18*(3). https://doi.org/10.1177/002224378101800313

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. In *European Business Review* (Vol. 31, Issue 1). https://doi.org/10.1108/EBR-11-2018-0203

Hansen, J. A., & Pihl-Thingvad, S. (2019). Managing employee innovative behaviour through transformational and transactional leadership styles. *Public Management Review*, *21*(6).

https://doi.org/10.1080/14719037.2018.1544272
Hassi, A. (2019). Empowering leadership and management innovation in the hospitality industry context: The mediating role of climate for creativity. *International Journal of Contemporary Hospitality Management*, *31*(4). https://doi.org/10.1108/IJCHM-01-2018-0003
Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, *43*(1). https://doi.org/10.1007/s11747-014-0403-8
Isaksen, S. G., & Ekvall, G. (2010). Managing for innovation: The two faces of tension in creative climates. *Creativity and Innovation Management*, *19*(2). https://doi.org/10.1111/j.1467-8691.2010.00558.x
Islam, M. A., Mendy, J., Haque, A. K. M. A., & Rahman, M. (2022). Green human resource management practices and millennial employees' retention in small and medium enterprises: The moderating impact of creativity climate from a developing country perspective. *Business Strategy and Development*, *5*(4). https://doi.org/10.1002/bsd2.202
Jun, K., & Lee, J. (2023). Transformational Leadership and Followers' Innovative Behavior: Roles of Commitment to Change and Organizational Support for Creativity. *Behavioral Sciences*, *13*(4). https://doi.org/10.3390/bs13040320
Karatepe, O. M., Aboramadan, M., & Dahleez, K. A. (2020). Does climate for creativity mediate the impact of servant leadership on management innovation and innovative behavior in the hotel industry? *International Journal of Contemporary Hospitality Management*, *32*(8). https://doi.org/10.1108/IJCHM-03-2020-0219
Knol, J., & Van Linge, R. (2009). Innovative behaviour: The effect of structural and psychological empowerment on nurses. *Journal of Advanced Nursing*, *65*(2). https://doi.org/10.1111/j.1365-2648.2008.04876.x
Kuril, S., Maun, D., & Chand, V. S. (2023). Measuring teacher innovative behavior: a validated multidimensional inventory for use with public school teachers. *International Journal of Educational Management*, *37*(2). https://doi.org/10.1108/IJEM-03-2022-0095
Munir, R., & Beh, L. S. (2019). Measuring and enhancing organisational creative climate, knowledge sharing, and innovative work behavior in startups development. *Bottom Line*, *32*(4). https://doi.org/10.1108/BL-03-2019-0076
Nguyen, P. (2024). Effects of transformational leadership on the learning organization and nurses' innovative behavior in Vietnamese public hospitals. *International Journal of Public Leadership*. https://doi.org/10.1108/IJPL-04-2024-0035
Nonaka, I., & Takeuchi, H. (1996). The knowledge-creating company: How Japanese companies create the dynamics of innovation. *Long Range Planning*, *29*(4). https://doi.org/10.1016/0024-6301(96)81509-3
Parhamnia, F., Farahian, M., & Rajabi, Y. (2022). Knowledge sharing and self-efficacy in an EFL context: the mediating effect of creativity. *Global Knowledge, Memory and Communication*, *71*(4–5). https://doi.org/10.1108/GKMC-03-2021-0040
Podsakoff, P. M., MacKenzie, S. B., Lee, J. Y., & Podsakoff, N. P. (2003). Common Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies. In *Journal of Applied Psychology* (Vol. 88, Issue 5). https://doi.org/10.1037/0021-9010.88.5.879
Purc, E., & Lagun, M. (2019). Personal values and innovative behavior of employees. *Frontiers in Psychology*, *10*(APR). https://doi.org/10.3389/fpsyg.2019.00865
Ringle, C. M., Wende, S., & Becker, J.-M. (2015). SmartPLS 3. Bönningstedt: SmartPLS. *Retrieved From*.
Salam, S., & Senin, A. A. (2022). A Bibliometric Study on Innovative Behavior Literature (1961–2019). *Sage Open*, *12*(3). https://doi.org/10.1177/21582440221109589
Scott, S. G., & Bruce, R. A. (1994). Determinants of Innovative Behavior: A Path Model of Individual Innovation in the Workplace. *Academy of Management Journal*, *37*(3). https://doi.org/10.5465/256701
Shalley, C. E., Zhou, J., & Oldham, G. R. (2004). The effects of personal and contextual characteristics on creativity: Where should we go from here? *Journal of Management*, *30*(6). https://doi.org/10.1016/j.jm.2004.06.007

Singh, M., & Sarkar, A. (2019). Role of psychological empowerment in the relationship between structural empowerment and innovative behavior. *Management Research Review*, *42*(4). https://doi.org/10.1108/MRR-04-2018-0158

Slåtten, T., Svensson, G., & Sværi, S. (2011). Empowering leadership and the influence of a humorous work climate on service employees' creativity and innovative behaviour in frontline service jobs. *International Journal of Quality and Service Sciences*, *3*(3). https://doi.org/10.1108/17566691111182834

Stanikzai, M. I. (2023). Critical Thinking, Collaboration, Creativity and Communication Skills among School Students: A Review Paper. *European Journal of Theoretical and Applied Sciences*, *1*(5). https://doi.org/10.59324/ejtas.2023.1(5).34

Tripathi, N., & Ghosh, V. (2020). Deep-level diversity and workgroup creativity: the role of creativity climate. *Journal of Indian Business Research*, *12*(4). https://doi.org/10.1108/JIBR-01-2019-0007

Vandavasi, R. K. K., McConville, D. C., Uen, J. F., & Yepuru, P. (2020). Knowledge sharing, shared leadership and innovative behaviour: a cross-level analysis. *International Journal of Manpower*, *41*(8). https://doi.org/10.1108/IJM-04-2019-0180

Zeinabadi, H. (2022). Principals' role in teachers' knowledge-sharing beliefs, intention and behaviour in Iranian schools: exploring the impact of knowledge-sharing leadership. *Journal of Educational Administration*, *60*(5). https://doi.org/10.1108/JEA-09-2021-0168

DESCRIPTION OF TABLES AND FIGURES

Table

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CC-> IB	**0.440**	**0.445**	**0.078**	**5.606**	**0.000**
KS-> IB	**0.333**	**0.336**	**0.084**	**3.979**	**0.000**
KS & CC -> IB	**0.434**	**0.458**	**0.082**	**4.780**	**0.000**

Based on the table, the F^2 value for Knowledge Sharing on Innovative Behavior is 0.135, which falls into the moderate category as it ranges between 0.02 and 0.15 (Hair et al., 2017). Similarly, the F^2 value for Creative Climate on Innovative Behavior is 0.236, which is also classified as moderate as it falls between 0.15 and 0.35. In addition, the F^2 value for the combined effect of Creative Climate and Knowledge Sharing on Innovative Behavior is 0.195, which remains within the moderate classification. These findings indicate that all variables have a moderate impact on the endogenous variable of Innovative Behavior (IB), demonstrating their substantive contribution to the research model.

Tabel 5. Tabel F-Square

Relation	F^2 Value	Result
CC -> IB	0.236	Moderate
KS-> IB	0.135	Moderate
KS & CC -> IB	0.195	Moderate

Based on the results presented in the table, all hypotheses were supported with a significance level of $p < 0.001$. The standardized coefficients indicate a substantial positive impact of Creative Climate on Teachers' Innovative Behavior ($\gamma = 0.440$, $p < 0.001$) and

Knowledge Sharing on Teachers' Innovative Behavior (γ = 0.333, $p < 0.001$). Furthermore, the combined effect of Creative Climate and Knowledge Sharing on Teachers' Innovative Behavior was also significant (γ = 0.434, $p < 0.001$). These findings confirm the positive influence of both variables in fostering innovation among teachers.

Tabel 6. Hasil Model Persamaan Struktural

	Hypothesis	Results	Remark
H1	Creative Climate has a direct positive effect on Teachers' Innovative Behavior.	Standardized coefficient = 0.440 T-statistics = 5.606 P- Value = 0.000	Supported
H2	Knowledge Sharing has a direct positive effect on Teachers' Innovative Behavior.	Standardized coefficient = 0.333 T-statistics = 3.979 P- Value = 0.000	Supported
H3	Creativity Climate and Knowledge Sharing simultanously has a direct positive effect on Teachers' Innovative Behavior.	Standardized coefficient = 0.434 T-statistics = 4.780 P- Value = 0.000	Supported

Source: Research data

Figure

This literature review synthesizes existing studies to provide a theoretical foundation and identify gaps related to the influence of creative climate and knowledge sharing on innovative behavior in the educational context. The review focuses on the following key areas:

Creative Climate

Rooted in the Componential Theory of Creativity (Amabile, 2012), creative climate emphasizes the role of the work environment in driving creative outcomes. Research shows that a supportive organizational climate—characterized by autonomy, collaboration, and encouragement for experimentation—positively correlates with individual and team creativity (Isaksen & Ekvall, 2010). Amabile (2012) highlights that when teachers perceive their environment as conducive to creativity, they are more likely to actively implement innovative teaching methods. However, existing studies have primarily focused on the corporate and industrial sectors (Hassi, 2019), leaving a research gap in understanding how these dynamics apply in educational settings, particularly in developing countries such as Indonesia (Islam et al., 2022).

H1: Creative climate has a direct positive effect on teachers' innovative behavior.

Knowledge Sharing

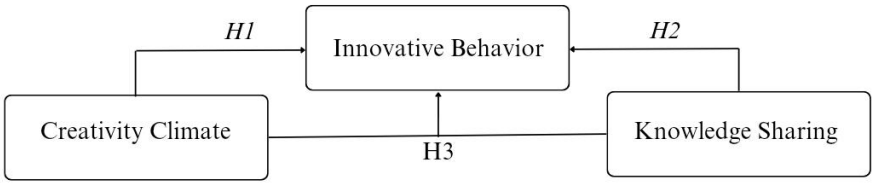
Knowledge sharing refers to the exchange of information, skills, and expertise among individuals or within teams (De Vries et al., 2006). It is widely recognized as a primary driver of innovation, as it enables individuals to build upon each other's ideas and solve problems collaboratively (Nonaka & Takeuchi, 1996). Studies show that teachers who actively engage in knowledge-sharing practices adapt more easily to new teaching methods and technologies (Cheng et al., 2009). However, barriers such as lack of trust, insufficient organizational support, and cultural differences often hinder effective knowledge sharing (Nguyen, 2024), especially in educational environments. Further research is needed to explore how to build structures that encourage and support knowledge-sharing behavior among educators (Aboramadan, 2021).

H2: Knowledge sharing has a direct positive effect on teachers' innovative behavior.

Innovative Behavior

Innovative behavior refers to the intentional efforts to generate, promote, and implement new ideas within a role or organization (Scott & Bruce, 1994). In the educational context, innovative behavior includes activities such as designing new curricula, implementing novel teaching strategies, and utilizing technology to enhance learning (Knol & Van Linge, 2009). Although individual characteristics such as intrinsic motivation and creative self-efficacy are important, environmental factors—such as creative climate and knowledge sharing—play a significant role in shaping innovative behavior (Shalley et al., 2004; Afsar et al., 2014). Existing literature highlights the relationship among these variables (Knol & Van Linge, 2009). However, empirical studies that integrate all three constructs—creative climate, knowledge sharing, and innovative behavior—within a single study in the education sector remain limited.

H3: Creative climate and knowledge sharing simultaneously have a direct positive effect on teachers' innovative behavior.



Research Problems and Rationale

Although the importance of innovation in education is increasingly recognized, several critical gaps in the literature remain unaddressed:

Research Gap in Creative Climate

Although studies emphasize the role of creative climate in fostering innovation (Isaksen & Ekvall, 2010), there is a lack of empirical evidence examining this relationship within educational settings, especially in developing countries like Indonesia. Teachers operate in unique environments that differ from corporate or industrial sectors, necessitating targeted research to explore how creative climate manifests in schools (Tripathi & Ghosh, 2020).

Knowledge Sharing as an Innovation Driver

While knowledge sharing is acknowledged as a fundamental driver of collaboration and innovation (De Vries et al., 2006), studies that integrate this construct with creative climate in the education sector remain limited. Most research has focused only on the independent effects of creative climate or knowledge sharing, leaving a significant gap in understanding their combined impact on teachers' innovative behavior (Zeinabadi, 2022).

Climate Factors in Innovative Behavior

Existing research on innovative behavior in education primarily emphasizes individual characteristics such as motivation and self-efficacy (Shalley et al., 2004), whereas creative climate and organizational factors remain underexplored (Dixit & Upadhyay, 2021). This study aims to address this gap by exploring the combined influence of creative climate and knowledge sharing on teachers' innovative behavior in Cirebon City. The findings are expected to offer valuable insights for policymakers and school administrators in designing interventions that foster innovation in education (Elidemir et al., 2020).