

Transformational Leadership, Self-Efficacy, and Knowledge Sharing in Shaping Innovative Behavior in Teacher Organizations

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Abstract

In an era of rapid educational change, professional teacher organizations are expected to foster innovation among their members. This study examines the role of Transformational Leadership in shaping teachers' Innovative Behavior through the mediating effects of Self-Efficacy and Knowledge Sharing within the Indonesian Teachers Association (IGI) in West Java. Using a quantitative explanatory design, data were collected from active IGI members through structured questionnaires and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings reveal that Self-Efficacy has the strongest direct effect on Innovative Behavior, followed by Knowledge Sharing. Transformational Leadership significantly influences both Self-Efficacy and Knowledge Sharing; however, its direct impact on Innovative Behavior is not significant. The results indicate that leadership fosters innovation primarily through strengthening teachers' psychological confidence and collaborative culture rather than through direct influence. This study contributes to leadership and organizational behavior literature by proposing an integrative model that highlights the mediating roles of psychological and social mechanisms in professional teacher organizations. Practically, the findings suggest that developing teachers' confidence and promoting structured knowledge-sharing practices are essential strategies for building sustainable innovation ecosystems in educational organizations.

Keywords: Transformational Leadership; Self-Efficacy; Knowledge Sharing; Innovative Behavior; Teacher Organizations

I. INTRODUCTION

Organizational demands in the era of disruption require high adaptability and innovation in order to continue to grow and have a sustainable impact. Increasingly complex global competition requires every organization, including professional organizations such as the Indonesian Teachers Association (IGI), to be able to create an environment conducive to the emergence of new ideas, creativity, and innovation from its members. In this context, innovative behavior becomes a key element that determines the competitiveness and sustainability of an organization. Innovative behavior enables individuals within an organization to generate new ideas, improve work processes, and find creative solutions to the challenges they face. However, this behavior does not arise spontaneously but is influenced by various factors, one of which is leadership style. According to Caniels et al. (2018), the main role of a leader is to motivate and encourage members of the organization to develop and reach their full potential. Effective leaders are not only results-oriented, but also able to inspire, provide vision, and create trust within the organization. (Para-González et al., 2018) emphasize that transformational leaders have the ability to lead organizations into the future by implementing strategies that foster creativity and innovation. In the context of non-profit organizations such as IGI, transformational leadership is particularly relevant due to the collaborative, voluntary nature of membership and the spirit of professional dedication. Based on data from the official IGI website (<https://s.igi.or.id/wilayah.php>), East Java Province has the highest number of members with approximately 29,407 members, followed by North Sulawesi (24,909 members), Aceh (14,105 members), and West Java (13,497 members). Meanwhile, several provinces such as South Papua, Papua Pegunungan, and West Papua have fewer than 100 members. This disparity indicates differences in participation levels, collaborative spirit, and innovative potential among these regions. This phenomenon shows that even though IGI has grown into a large professional organization for teachers with a membership network throughout Indonesia, there are still significant disparities in the distribution and participation of members between provinces.

This phenomenon may indicate that the success of professional organizations such as IGI in encouraging innovative behavior among their members does not only depend on the number of members, but also on the quality of leadership and the culture of knowledge sharing within the organization. Regional leaders who apply Transformational Leadership, namely those who are able to inspire, pay attention to individual needs, and provide intellectual challenges, have great potential to foster Self-Efficacy (members' belief in their abilities) and strengthen a culture of Knowledge Sharing (sharing knowledge and good practices among teachers). These two factors are theoretically proven to be important bridges between leadership and innovative behavior in organizations (Bai, 2025; Suliati et al., 2025).

Thus, differences in member participation dynamics between regions within the IGI can be explained not only by structural factors, but also by differences in leadership styles, member self-efficacy levels, and the culture of knowledge sharing that has developed in each region. This reinforces the urgency to examine how Transformational Leadership influences teachers' Innovative Behavior through the roles of Knowledge Sharing and Self-Efficacy, particularly in the context of the West Java Province IGI, which, despite having a large number of members, still faces challenges in optimizing the innovative and collaborative potential of its members. This research is expected to contribute theoretically and practically to the development of an effective leadership model in teacher professional organizations, while also serving as a basis for policies to strengthen leadership capacity and a culture of innovation within the IGI at the national level.

This research is conceptually and empirically limited to a study of the influence of Transformational Leadership on Innovative Behavior in the context of the Indonesian Teachers Association (IGI) in West Java Province. The focus of the research is directed at understanding the extent to which the transformational leadership style applied by the organization's management is able to encourage innovative behavior among IGI members. The geographical limitation was imposed because West Java Province is one of the regions with a high number of IGI members and a complex level of educational dynamics, making it a relevant representation to describe the phenomenon of leadership and innovation in professional teacher organizations. This research does not cover other dimensions of leadership such as transactional leadership or servant leadership, nor does it discuss external factors such as government policy, social environment, or educational technology that may also influence innovative behavior. Thus, these limitations are set to maintain the focus of the analysis so that the research results are more in-depth, targeted, and able to provide empirical contributions to the development of transformational leadership theory and its application in professional teacher organizations, particularly in efforts to build an innovative and collaborative culture within the IGI in West Java Province.

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II. Literature Review

Innovative behavior is defined as a series of individual actions that include exploring opportunities, generating ideas, promoting ideas, and implementing ideas in the context of work (Janssen, 2000). In educational organizations, innovative behavior is a strategic factor in improving the quality of learning and adapting to change. However, innovative behavior does not arise spontaneously, but is influenced by leadership factors as well as psychological and social mechanisms within the organization.

Transformational Leadership and Innovative Behavior. Transformational leadership is a leadership style that emphasizes inspirational vision, intellectual stimulation, ideal influence, and individual attention (Bass, 1985; Bass & Avolio, 1994). Transformational leaders encourage members to go beyond personal interests for the sake of organizational goals and dare to explore new ideas. Intellectual stimulation plays a special role in enhancing creativity and innovative problem solving. Empirical research shows that transformational leadership has a positive effect on innovative behavior because leaders create a work environment that is supportive of experimentation and measured risk-taking (Al-edenat, 2018; Le & Lei, 2019; Zheng et al., 2019). In the context of teacher professional organizations, this leadership style is important because of its participatory and collaborative value-based characteristics.

Transformational Leadership and Knowledge Sharing. Knowledge sharing is a process of knowledge exchange that includes knowledge donating and knowledge collecting (Van den Hooff & De Ridder, 2004). Transformational leadership has been proven to enhance the culture of knowledge sharing through the creation of an organizational climate based on trust and open communication. Le and Lei (2017, 2018) show that transformational leadership has a significant effect on knowledge sharing through the mediation of trust. In addition, Dwivedi et al. (2020) found that transformational leadership increases knowledge sharing, which in turn has an impact on organizational effectiveness. Thus, leadership serves as a major antecedent in building a collaborative culture.

Transformational Leadership and Self-Efficacy. Based on Social Learning Theory, individuals learn through observation of social models in their environment (Bandura, 1977). Self-efficacy refers to an individual's belief in their ability to complete a particular task (Bandura, 1997). Transformational leaders, through verbal

support and inspirational motivation, can increase the self-efficacy of organizational members. Research shows that transformational leadership has a positive effect on self-efficacy (Bayraktar & Jiménez, 2020; Chan, 2020; Perko et al., 2014). In the context of teachers, increased self-efficacy encourages the courage to try new learning approaches and increases resilience in the face of professional challenges.

Self-Efficacy and Knowledge Sharing. Self-efficacy serves as a psychological foundation in encouraging participation in knowledge sharing. Individuals with high levels of efficacy are more confident in sharing knowledge because they feel their competence is valuable (Shao et al., 2015; Nguyen & Malik, 2020). A systematic study by Safdar et al. (2020) also confirmed that self-efficacy has a positive relationship with knowledge management practices. This shows that individual psychological aspects are important determinants in building a culture of knowledge sharing.

Knowledge Sharing and Innovative Behavior. Knowledge sharing is a direct determinant of innovative behavior. The process of knowledge exchange allows for the combination of diverse ideas, resulting in more effective creative solutions. Vandavasi et al. (2020) found that knowledge sharing has a direct and indirect influence on innovative behavior through shared leadership. Research by Le and Lei (2019) also shows that knowledge sharing increases an organization's innovation capability. Thus, a culture of knowledge sharing strengthens the collective innovation process.

Overall, the literature shows that the relationship between transformational leadership and innovative behavior is complex and mediated by self-efficacy and knowledge sharing. An integrative model that tests the simultaneous role of these two mediating variables is relevant, especially in the context of collaborative teacher professional organizations such as IGI.

III. RESULT

Direct Effect Test

Table 4.22 Direct effect test

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ((O/STDEV))	P values	Decision
KS → IB	0.23	0.23	0.10	2.26	0.02	Accepted
SE → IB	0.54	0.54	0.06	9.52	0.00	Accepted
SE → KS	0.39	0.39	0.05	7.11	0.00	Accepted
TL → IB	0.07	0.07	0.06	1.15	0.25	Rejected
TL → KS	0.51	0.51	0.06	8.78	0.00	Accepted
TL → SE	0.55	0.54	0.07	7.58	0.00	Accepted

Source: Processed 2026

Hypothesis Testing (Path Coefficients – Inner Model)

- H1: Knowledge Sharing → Innovative Behavior
The test results show that Knowledge Sharing has a positive and significant effect on Innovative Behavior ($\beta = 0.23$; $t = 2.26$; $p = 0.02$). Thus, H1 is accepted. A positive path coefficient indicates that an increase in Knowledge Sharing will be followed by a significant increase in Innovative Behavior.
- H2: Self-Efficacy → Innovative Behavior
Self-Efficacy was found to have a positive and highly significant effect on Innovative Behavior ($\beta = 0.54$; $t = 9.52$; $p < 0.001$). Therefore, H2 is accepted. The magnitude of the path coefficient indicates that Self-Efficacy is a strong predictor of Innovative Behavior.
- H3: Self-Efficacy → Knowledge Sharing
The analysis results show that Self-Efficacy has a positive and significant effect on Knowledge Sharing ($\beta = 0.39$; $t = 7.11$; $p < 0.001$). Thus, H3 is accepted. This finding indicates that the higher the level of Self-Efficacy, the higher the tendency for individuals to engage in Knowledge Sharing.
- H4: Transformational Leadership → Innovative Behavior
Transformational Leadership did not show a significant effect on Innovative Behavior ($\beta = 0.07$; $t = 1.15$; $p = 0.25$). Thus, H4 was rejected. These results indicate that, directly, Transformational Leadership does not contribute significantly to the increase in Innovative Behavior.
- H5: Transformational Leadership → Knowledge Sharing
Transformational Leadership has a positive and significant effect on Knowledge Sharing ($\beta = 0.51$; $t = 8.78$; $p < 0.001$). Therefore, H5 is accepted. The relatively large path coefficient indicates that Transformational Leadership plays an important role in encouraging Knowledge Sharing practices.
- H6: Transformational Leadership → Self-Efficacy
The test results show that Transformational Leadership has a positive and significant effect on Self-Efficacy ($\beta = 0.55$; $t = 7.58$; $p < 0.001$). Thus, H6 is accepted. These findings indicate that transformational leadership contributes significantly to increasing individuals' levels of Self-Efficacy.

Indirect Effect Test

Table 2 Indirect effect test

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics ((O/STDEV))	P values	Kesimpulan
TL→SE→IB	0.29	0.29	0.05	5.55	0.00	Diterima
TL→KS→IB	0.05	0.05	0.02	2.05	0.04	Diterima

Sumber : Diolah 2026

- H7: Transformational Leadership → Knowledge Sharing → Innovative Behavior
Transformational Leadership was found to have a positive and significant indirect effect on Innovative Behavior through Knowledge Sharing ($\beta = 0.12$; $t = 2.31$; $p = 0.02$). Therefore, H8 is accepted. These results indicate that Knowledge Sharing significantly mediates the relationship between Transformational Leadership and Innovative Behavior.
- H8: Transformational Leadership → Self-Efficacy → Innovative Behavior
The test results show that Transformational Leadership has a positive and highly significant indirect effect on Innovative Behavior through Self-Efficacy ($\beta = 0.29$; $t = 5.55$; $p < 0.001$). Thus, H9 is accepted. The magnitude of the indirect coefficient indicates that Self-Efficacy is a strong mediator in explaining the effect of Transformational Leadership on Innovative Behavior.

IV. Discussion

1) Hipotesis 1 : Knowledge Sharing → Innovative Behavior

The results of the study indicate that knowledge sharing has a positive and significant effect on innovative behavior ($\beta = 0.23$; $p < 0.05$). This finding is in line with knowledge sharing theory, which states that the process of knowledge exchange is the main foundation for innovation.

In general, cross-country and cross-industry studies show that when employees actively share knowledge (both giving and gathering), new ideas emerge more frequently, are promoted more often, and are implemented more widely (Kmieciak, 2020; X. Li et al., 2022; Nguyen et al., 2019; Shafaat & Mahmood, 2020; Uen et al., 2021). These positive effects are consistent with the SECI (socialization–externalization–combination–internalization) framework, in which knowledge exchange triggers the creation of new knowledge and innovation (Kmieciak, 2020; X. Li et al., 2022; Nguyen et al., 2019).

Many studies also confirm that reciprocal motivation, trust, subjective norms, and leadership (transformational/entrepreneurial/responsible) strengthen knowledge sharing and ultimately innovative behavior (Islam et al., 2022; Khan & Khan, 2019; Kmieciak, 2020; Zhang et al., 2025) The finding of $\beta = 0.23$; $p < 0.05$ is highly consistent with the literature consensus that the higher the intensity of knowledge sharing, the stronger the tendency for members to exhibit innovative behavior.

2) Hipotesis 2: Self-Efficacy → Innovative Behavior

The results show that Self-Efficacy has a positive and highly significant effect on Innovative Behavior ($\beta = 0.54$; $p < 0.001$). The relatively large coefficient value indicates that Self-Efficacy is the strongest predictor in this research model for innovative behavior.

This finding is consistent with Social Learning Theory (Bandura, 1977), which places self-efficacy as the main determinant of individual behavior. A meta-analysis of seven studies found a moderately strong positive correlation between self-efficacy and innovative work behavior ($r = 0.469$; $p < 0.001$), confirming self-efficacy as an important predictor of innovative behavior (Dasmo et al., 2022).

Studies on teachers show that self-efficacy has a positive and significant effect on innovative work behavior and teacher performance (Amelia et al., 2025; Siagian et al., 2025; Sofiyani et al., 2022).

Studies on university staff and lecturers show that self-efficacy has a significant positive effect on innovative behavior and can be strengthened by organizational support (Lambi & Budiman, 2024; Namono et al., 2024).

Longitudinal research shows that an increase in self-efficacy over time is followed by an increase in idea generation, dissemination, and implementation (Ng & Lucianetti, 2015).

Increased self-efficacy is a strategic key in building an innovative culture in professional teacher organizations (Mehmood et al., 2020; Nohut & Balaban, 2022; Wang & Mahmood, 2025).

In practical terms, interventions such as training, small successes (mastery experiences), modeling from exemplary colleagues, and organizational support are recommended to increase self-efficacy and, in turn, strengthen the innovative behavior of IGI members (Lambi & Budiman, 2024; Siregar et al., 2022).

3) **Hipotesis 3:** Self-Efficacy \rightarrow Knowledge Sharing

The test results show that Self-Efficacy has a positive and significant effect on Knowledge Sharing ($\beta = 0.39$; $p < 0.001$). This finding indicates that teachers who have high self-confidence are more motivated to share knowledge with their peers.

Self-efficacy is defined as an individual's belief in their ability to perform an action; individuals with high self-efficacy are more motivated, persistent, and courageous in displaying knowledge-sharing behavior (Akhtari et al., 2022; Ergün & Avci, 2018; Nursyirwan et al., 2023).

Research on teachers and educators shows that when they feel they have valuable knowledge and are able to convey it, the frequency and intention to share learning materials and practices increases, both face-to-face and through digital platforms (Acker et al., 2014; Hoi, 2021; Sharimova, 2025).

Internal psychological factors (self-efficacy, intrinsic motivation, sense of community) have repeatedly been identified as the main drivers of knowledge sharing, stronger than external rewards in many contexts (Mustika et al., 2022; Nursyirwan et al., 2023; Safdar et al., 2020).

4) **Hipotesis 4 :** Transformational Leadership \rightarrow Innovative Behavior

The results of the study indicate that Transformational Leadership does not have a significant direct effect on Innovative Behavior ($\beta = 0.07$; $p > 0.05$). This finding suggests that transformational leadership in the context of IGI does not directly encourage innovative behavior among members.

Many studies have found a positive and significant direct influence between transformational leadership (TL) and innovative work behavior (IWB) in various contexts (Karimi et al., 2023; Suliati et al., 2025). However, some research in the education and service sectors shows that the direct effect of TL can be weak or insignificant, while the indirect effect through psychological and social variables is strong (Heryani et al., 2025; Irianto & Sudibjo, 2019).

Social Cognitive/Social Learning Theory states that innovative behavior arises from environmental interactions (leadership), personal factors (self-efficacy/psychological capital), and social mechanisms (knowledge sharing, innovation climate) (Chen & Khan, 2025; H. Li et al., 2019; Suliati et al., 2025). Many studies show that TL encourages IB mainly by increasing creative/self-efficacy, hope, and optimism (psychological capital) (Karimi et al., 2023; Suliati et al., 2025).

5) **Hipotesis 5:** Transformational Leadership \square Knowledge Sharing

The test results show that Transformational Leadership has a positive and significant effect on Knowledge Sharing ($\beta = 0.51$; $p < 0.001$).

This finding is consistent with Transformational Leadership Theory, which states that transformational leaders create a supportive, trusting environment that encourages collaboration. From the perspective of Social Exchange Theory, when leaders show individual attention and support, members feel valued and are encouraged to reciprocate through positive contributions, including knowledge sharing.

In the context of IGI, inspiring and supportive regional leaders create a safe space for teachers to share good practices and professional experiences. This strengthens the culture of knowledge sharing as the foundation for collective innovation.

Transformational leadership consistently encourages knowledge sharing behavior, and the effect found ($\beta = 0.51$; $p < 0.001$) is strongly in line with international research.

In transformational leadership theory, leaders with clear vision, inspiration, intellectual stimulation, and individual attention create a safe psychological climate and a sense of trust that encourages members to share knowledge with each other (Al-Husseini & Elbeltagi, 2018; Kim & Park, 2020; Yin et al., 2019).

6) **Hipotesis 6:** Transformational Leadership \rightarrow Self-Efficacy

The results show that Transformational Leadership has a positive and significant effect on Self-Efficacy ($\beta = 0.55$; $p < 0.001$).

Within the framework of Social Learning Theory, leaders act as role models who are observed and imitated by members. When leaders provide support, verbal encouragement, and intellectual stimulation, members will experience an increase in confidence in their abilities (Almeida et al., 2016).

These findings indicate that transformational leadership plays a fundamental role in building teachers' self-efficacy. Moral support, a clear vision, and the trust given by leaders are sources of self-efficacy formation among IGI members (Gümüüş et al., 2025; Lin & Wang, 2025).

Many educational studies and organizations show a positive and significant relationship between transformational leadership (TL) and teacher/employee self-efficacy, with a moderate to strong effect, in line with $\beta = 0.55$ in the results of this study (Moy & A.Hamid, 2025; Ninković & Florić, 2018).

In Chinese schools, principals have a strong influence on teacher self-efficacy and, through that, on professional development and teaching strategies. A study at SJKC Johor Bahru also found a significant positive relationship between principals and teacher self-efficacy in peer coaching programs (Peng et al., 2025).

7) **Hipotesis 7:** Transformational Leadership \rightarrow Knowledge Sharing \rightarrow Innovative Behavior

The results show significant mediation ($\beta = 0.12$; $p < 0.05$). This means that Transformational Leadership increases Innovative Behavior through Knowledge Sharing.

This finding explains that transformational leadership first builds a culture of knowledge sharing, and through this collective process, innovative behavior is born. Thus, Knowledge Sharing becomes a social mechanism that bridges the influence of leadership on innovation.

The research results explain that transformational leaders build a climate of trust, support, and shared vision that makes employees willing to share both explicit and tacit knowledge (Al-Husseini et al., 2019; Herlina et al., 2024).

Through this knowledge-sharing practice, the team integrates ideas, experiences, and solutions, giving rise to innovative behavior in their daily work (Bahagia et al., 2024; Jiang & Chen, 2018).

Thus, knowledge sharing serves as a key social mechanism that bridges the influence of leadership on innovation in higher education, the public sector, banking, hotels, IT, and SMEs.

The results of this study are strongly in line with the literature: significant mediation ($\beta = 0.12$; $p < 0.05$) supports the notion that transformational leadership first fosters a culture of knowledge sharing, and through this collective process, innovative behavior is born.

8) **Hipotesis 8:** Transformational Leadership \rightarrow Self-Efficacy \rightarrow Innovative Behavior

The results show a strong indirect effect ($\beta = 0.29$; $p < 0.001$). Self-efficacy proved to be the main mediator in this relationship.

This means that transformational leadership increases members' self-confidence, and it is this increase in self-efficacy that significantly drives innovative behavior. These findings confirm that psychological mechanisms are more dominant than the direct influence of leadership on innovation.

The results of this study, that self-efficacy is the primary mediator between transformational leadership (TL) and innovative behavior, are highly consistent with the international literature.

Many studies show a path pattern: TL \square (creative) self-efficacy \square innovative behavior. TL increases self-efficacy/creative self-efficacy, which then significantly increases employees' innovative behavior (Karimi et al., 2023; Lei et al., 2020; Sehgal et al., 2025).

Several studies found that indirect effects through self-efficacy/psychological capital are as strong or even more important than the direct effects of TL on innovation (Hadi et al., 2023; Hariri et al., 2024; Lim et al., 2024).

In the context of education and SMEs, teacher/employee self-efficacy is the biggest contributor to innovative behavior, while TL has an indirect influence mainly through self-efficacy and climate (Amelia et al., 2025; Zainal & Matore, 2021).

The conclusion states that psychological mechanisms (self-efficacy) are more dominant than the direct influence of TL, in line with many studies showing partial/strong mediation (Hadi et al., 2023; Lim et al., 2024).

The emphasis on increasing members' self-confidence as the main driver of innovative behavior is supported by various contexts: education, hotels, the public sector, manufacturing, and IT (Karimi et al., 2023; Suliati et al., 2025).

The results of this study are in line with the results of transformational leadership research, which primarily encourages innovative behavior through the strengthening of self-efficacy, rather than through direct structural or transactional influence.

V. CONCLUSION

This study concludes that Transformational Leadership has a significant effect on Self-Efficacy and Knowledge Sharing, but does not have a strong direct effect on Innovative Behavior. Self-Efficacy proved to be the variable with the most dominant effect on Innovative Behavior, followed by Knowledge Sharing. In addition, Self-Efficacy also plays a role in increasing the intensity of Knowledge Sharing among organization members. These findings indicate that teachers' innovative behavior is shaped more by the strengthening of psychological aspects and collaborative culture than by the direct influence of leadership. Thus, the mediating mechanisms of Self-Efficacy and Knowledge Sharing are key in explaining the relationship between transformational leadership and innovative behavior in teacher professional organizations.

VI. RECOMMENDATIONS

Based on the findings of this study, professional teacher organizations such as IGI need to strengthen transformational leadership capacity through training that emphasizes intellectual stimulation, inspirational motivation, and individual attention. In addition, teacher self-efficacy development programs need to be designed systematically through mentoring, competency strengthening, and constructive feedback. Organizations also need to build a sustainable Knowledge Sharing ecosystem through discussion forums, practice communities, and collaborative digital platforms. Further research is recommended to expand the scope of the region and consider other variables such as psychological safety or organizational culture to enrich the innovative behavior model in the context of education.

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