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Distributed Leadership and Teacher Turnover Intention: The Mediating Roles of Teacher Efficacy and Work Engagement and the Moderating Role of Interpersonal Trust



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ABSTRACT (9 pt)

Objective: Teacher turnover intention remains a critical challenge in vocational education, particularly in emerging economies where teacher retention is essential for maintaining instructional quality and sustainable school development. This study examines the effect of distributed leadership on teacher turnover intention, mediated by teacher efficacy and work engagement and moderated by interpersonal trust. **Method:** This study utilized a quantitative explanatory survey design. Data were obtained from 250 teachers in private vocational high schools in Jakarta, Indonesia, using cluster sampling. The proposed mediated-moderated model was assessed using Partial Least Squares Structural Equation Modeling (PLS-SEM) which draws on Conservation of Resources (COR) Theory. **Results:** The findings demonstrate that distributed leadership has a significant positive effect on teacher efficacy and work engagement. Both variables significantly reduce teacher turnover intention, with work engagement emerging as the strongest predictor. Teacher efficacy also significantly mediates the relationship between distributed leadership and work engagement. Furthermore, interpersonal trust negatively moderates the relationship between distributed leadership and teacher efficacy, indicating a resource saturation effect in high-trust environments. **Novelty:** Based on Conservation of Resources (COR) Theory, this study offers new theoretical insight by demonstrating that leadership resources do not operate linearly. Using a moderated-mediation model, the findings reveal a resource saturation effect in which high interpersonal trust weakens the marginal impact of distributed leadership on teacher efficacy. This extends leadership research by empirically identifying the boundary conditions of distributed leadership and refining COR Theory within vocational education settings.

INTRODUCTION

Teacher retention has become a persistent challenge in educational systems worldwide, particularly in vocational education where instructional continuity and teacher expertise are crucial for preparing students for the labor market. High levels of teacher turnover disrupt learning processes, reduce institutional stability, and negatively affect instructional quality and student outcomes, especially in skill-oriented educational settings (Hanushek et al., 2016; Admiraal & Kittelsen Røberg, 2023). Empirical evidence consistently shows that frequent teacher turnover weakens instructional effectiveness and hampers long-term school development (Vekeman et al., 2016).

Within the Indonesian context, this issue is increasingly evident in vocational high schools (Sekolah Menengah Kejuruan/SMK). Recent reports indicate a downward trend in the number of vocational teachers in both public and private schools, reflecting increased teacher mobility and resignation (Tribunnews, 2020; Jawapos, 2025). Beyond structural and economic considerations, studies suggest that teacher turnover decisions are strongly influenced by psychological and organizational conditions such as work climate, perceived support, and leadership practices within schools (Russell et al., 2020; Zhang et al., 2024). Research consistently highlights work engagement as a powerful



protective factor against turnover intention, a finding similarly reported even in high-demand, high-stress sectors (Agustina, 2019). These findings highlight that teacher turnover in vocational education should be understood as a multidimensional educational issue rather than a purely administrative problem.

Despite growing attention to teacher turnover and its underlying causes, much of the existing literature continues to examine distributed leadership, work engagement, and teacher efficacy either in isolation or through limited mediation models. The proposed integrated framework that conceptualizes leadership, psychological resources, and social trust as interconnected mechanisms shaping teacher turnover intention addresses the gap. Recent educational research has increasingly emphasized that teacher turnover is closely intertwined with increased levels of burnout, emotional exhaustion, and declining trust, particularly during periods of educational disruption and stress (Skaalvik, 2021). Emerging evidence suggests that supportive leadership practices and strong interpersonal trust function as critical protective resources that buffer teachers against burnout while sustaining engagement under demanding conditions (Benevene et al., 2020; Ninković et al., 2022; W. Schaufeli, 2021).

While leadership has been considered long before as a critical organizational factor shaping professional experiences, motivation, and teacher retention; the role of distributed leadership remains underexplored, particularly in vocational schools (Harris, 2014). Distributed leadership conceptualizes leadership as a collective practice that emerges through interactions among principals, teachers, and other school actors (Youngs, 2020). Empirical studies show that distributed leadership creates positive school climate, enhances teacher empowerment, and improves organizational functioning in educational settings (Hallinger & Heck, 2010; Ross et al., 2016; Liu et al., 2023). Distributed leadership has also been acknowledged for its capacity to foster adaptive leadership structures and enhance overall school effectiveness (Bouderbala, 2020). Recent findings further confirm that distributed leadership has positive relationship with teacher outcomes such as job satisfaction, psychological empowerment, professional motivation, and work engagement (Cai et al., 2023; Kavgaci & Öztürk, 2023; Tao, 2023).

However, recent scholarly discussions highlight that the relationship between work engagement and turnover intention is not always uniform. This relationship is dependent on organizational boundary conditions such as leadership style, school climate, and organizational justice, which moderate how leadership practices affect teacher outcomes (Saraswati & Lie, 2021). Moreover, studies in secondary education explicitly link distributed leadership to organizational commitment, reinforcing its broader role in enhancing teacher motivation while reducing turnover intention (Tosun & Güner Kibaroglu, 2023). Notably, recent work shows that the effects of distributed leadership on teacher outcomes like organizational commitment are often mediated through critical psychological resources (Imran et al., 2025)

In addition to leadership structures, psychological mechanisms play a central role in explaining how leadership practices influence teacher behavior. Teacher efficacy,



conceptualized as teachers' beliefs in their ability to plan, organize, and deliver effective instruction, has been identified as a key personal resource influencing motivation, persistence, and instructional commitment (Bandura, 2010; Tschannen-Moran & Hoy, 2001; Decuyper & Schaufeli, 2020). Recent empirical research shows that distributed leadership promotes teacher efficacy by providing opportunities for collaboration, shared responsibility, and professional learning (Cai et al., 2023; Choi, 2023). Teachers who believe in their own effectiveness are more capable of handling teaching problems and are more dedicated to their jobs. (Lazarides & Warner, 2020).

A core function of distributed leadership is its ability to foster critical psychological resources such as work engagement, which research shows is essential for managing teacher stress and ensuring retention (Julianto et al., 2024). Work engagement represents another crucial psychological mechanism linking leadership practices to teacher retention. Work engagement is a good, fulfilling state of mind at. It is distinguished by energy, dedication, and focus. It shows how emotionally and mentally invested teachers are in their profession (W. B. Schaufeli & Bakker, 2004). The importance of work engagement in reducing turnover intention is well-established in the literature, particularly as a psychological resource that directly and negatively predicts turnover intention (Syah Fanissa & Indiyati, 2025). Within the Job Demands-Resources (JD-R) framework, leadership support and personal resources, such as efficacy, act as key predictors of work engagement. (Bakker & Demerouti, 2016). Empirical studies in educational settings confirm that teachers with higher work engagement exhibit lower turnover intention and stronger professional commitment (Kavgacı & Öztürk, 2023; Wang, 2025).

Interpersonal trust further shapes the social context in which leadership and psychological resources operate. Trust among teachers facilitates collaboration, psychological safety, and the effective exchange of professional support, enabling leadership practices to be translated into personal resources such as efficacy and engagement (McAllister, 1992; Ninković et al., 2022). While recent studies indicate that interpersonal trust strengthens the positive effects of distributed leadership on teacher outcomes (Cai et al., 2023), emerging evidence suggests that in high-trust environments, the marginal contribution of leadership practices to efficacy development may diminish due to a resource saturation effect (Hobfoll et al., 2018).

Given the increasing scholarly attention to distributed leadership, teacher efficacy, work engagement, and turnover intention, existing studies still tend to examine these relationships separately or through limited mediation models. Integrated frameworks that simultaneously consider leadership, psychological resources, and social conditions remain scarce, particularly in vocational school within emerging economies (Kavgacı & Öztürk, 2023; Gong, 2025). Moreover, limited empirical evidence has explored the boundary conditions under which distributed leadership becomes less effective in strengthening teacher efficacy.

This study focuses on examining the impact of distributed leadership on teacher turnover intention, mediated by teacher efficacy and work engagement, and to evaluate the moderating role of interpersonal trust in private vocational high schools in Indonesia. Despite these theoretical and empirical insights, teacher turnover intention



remains a serious challenge in educational institutions, particularly in vocational schools in developing countries such as Indonesia (Bright, 2018). High turnover disrupts instructional continuity, reduces institutional knowledge, strains recruitment resources, and affects learning quality, especially in skills-based education. Local reports and preliminary interviews suggest that vocational teachers in Surakarta are experiencing job mobility due to discomfort, limited support, and perceived misalignment with school culture, thereby emphasizing the relevance of psychological mechanisms in understanding turnover phenomena. Accordingly, this study analyzes the effect of distributed leadership on teacher turnover intention in private vocational high schools (SMK) in Surakarta, Indonesia. Specifically, this study seeks to (1) test the direct effects of distributed leadership on teacher efficacy and work engagement; (2) examine the mediating roles of teacher efficacy and work engagement in explaining how distributed leadership relates to turnover intention; and (3) analyze the moderating role of interpersonal trust on the relationship between distributed leadership and teacher efficacy to identify the boundary conditions of leadership effectiveness. Grounded in Conservation of Resources (COR) Theory, this study is expected to clarify how leadership practices interact with psychological and social resources to support teacher retention in vocational education settings.

RESEARCH METHOD

This study utilized a quantitative explanatory design using a survey method, with data obtained through a structured questionnaire adapted from previously validated scales. The scales used to measure key variables—Distributed Leadership (DL), Teacher Efficacy (TE), Work Engagement (WE), Interpersonal Trust (IT), and Turnover Intention (TI)—were selected based on their established use in educational settings and their relevance to the research context. The TI scale was adapted from Mobley et al. (1978), while the scales for DL (Mascall et al., 2008), TE (Gibson & Dembo, 1984), WE (Schaufeli & Bakker, 2004), and IT (Mascall et al., 2008) were similarly based on well-established instruments. To confirm the reliability and validity of these scales, the Cronbach's alpha (α), Average Variance Extracted (AVE), and Composite Reliability (CR) for each construct were assessed, with the following thresholds based on Hair et al. (2017): a Cronbach's alpha $\geq 0,70$ indicates acceptable internal consistency; an AVE $\geq 0,50$ confirms convergent validity; and a CR $\geq 0,70$ demonstrates good reliability. The results of these tests showed that all constructs met these criteria, ensuring the robustness of the measurement instruments. The electronic questionnaire was distributed via Google Forms after obtaining formal approval from each participating school in Surakarta and ensuring the voluntary and informed consent of all participants.

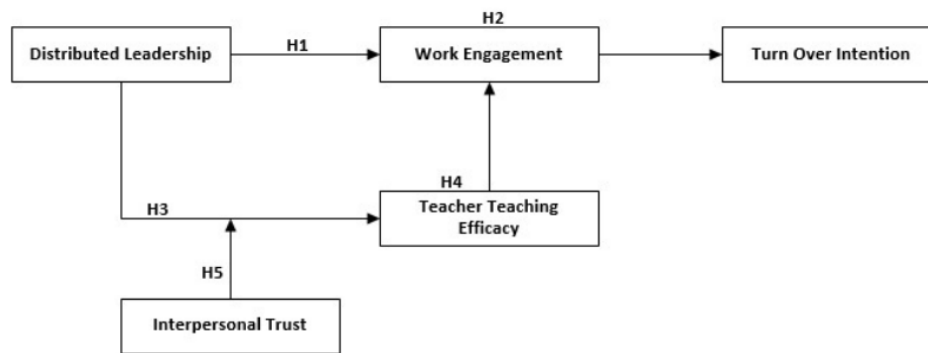


Figure 1. Research Framework (Cai et al., 2023; Kavgacı & Öztürk, 2023)

52 This study utilizes a quantitative methodology with an explanatory survey design to examine causal links among latent variables and to validate hypotheses established from the theoretical framework. (Sekaran & Bougie, 2016). The study focuses on testing a complex causal structural model, specifically the effect of distributed leadership on teacher turnover intention through the mediating roles of teacher efficacy and work engagement, as well as the moderating role of interpersonal trust. The unit of analysis in this study is the individual, the active teachers working in private Vocational High Schools (SMK). Based on the time dimension, this study is cross-sectional, indicating that data were collected at a particular time point.

The population of the study consists of all active teachers in private Vocational High Schools located in Surakarta City. This study applied cluster sampling, in which each private SMK served as a cluster. This technique was selected due to homogeneity among clusters (similar organizational structures) and heterogeneity within clusters (diverse teacher characteristics), allowing each cluster to function as a micro-representation of the population based (Cooper & Schindler, 2014). A one-stage cluster sampling approach was adopted, with clusters selected purposively based on the willingness of schools to grant research access. Importantly, this purposive element was restricted to gaining institutional access at the cluster level and did not involve subjective selection of individual respondents. Once the access was granted, teachers within participating schools were invited to complete the standardized survey instrument; therefore, the quantitative explanatory design of the study remains intact. The predetermined sample size is 215 active teachers. This sample determination is based on the total of 33 indicators used in the questionnaire. Referring to Hair et al., (2017), the minimum sample size is 5 to 10 times the number of indicators ($5 \times 33 = 165$). Therefore, the selection of 215 respondents is considered sufficient to enhance statistical power and anticipate non-response.

Primary data serve as the main source of information and were collected directly from respondents through an electronic questionnaire distributed via Google Forms. The questionnaire was disseminated through official internal school communication channels (WhatsApp groups or email) after obtaining formal approval from each participating school. All research variables—Distributed Leadership, Teacher Teaching Efficacy, Work Engagement, Interpersonal Trust, and Turnover Intention—are latent constructs measured using a closed-ended five-point Likert scale (1 = Strongly Disagree to 5 = Strongly Agree). These instruments were adapted from previously validated

scales (Mascall et al., 2008; Schaufeli & Bakker, 2004) and were adjusted to fit the vocational school educational context in Indonesia.

The collected data were analyzed using PLS-SEM with the SmartPLS software because it can evaluate complicated causal links in a structural model at the same time. This is important for validating the suggested mediated-moderated framework. (Hair et al., 2019). Furthermore, PLS-SEM is suitable for theory-driven explanatory studies and is particularly useful when the data distribution is non-normal, which is common in social science research (Hair et al., 2017). Through the approach, it is possible to do simultaneous assessment of the measurement model (validity and reliability) and the structural model (path coefficients, mediation, and moderation effects).

Table 1. Research Instruments

Variable	Operational Definition	Number of Items	Primary Source(s)
Distributed Leadership (DL)	Teachers' perceptions of the extent to which the principal and informal leaders collaboratively distribute leadership roles within the school.	4 items	Mascall et al., (2008)
Teacher Efficacy (TE)	Teachers' beliefs in their ability to design, deliver, and evaluate instructional processes effectively.	9 items	Gibson & Dembo, (1984)
Work Engagement (WE)	Teachers' affective and cognitive engagement in their teaching tasks, characterized by vigor, dedication, and absorption.	8 items	Schaufeli & Bakker, (2004)
Interpersonal Trust (IT)	Trust among teachers in professional relationships, characterized by openness, mutual respect, and mutual support.	6 items	Mascall et al., (2008)
Turnover Intention (TI)	Teachers' tendencies or intentions to leave their current institution in the near future.	6 items	(Mobley et al., 1978; Vekeman et al., 2016)

RESULTS AND DISCUSSION

Results

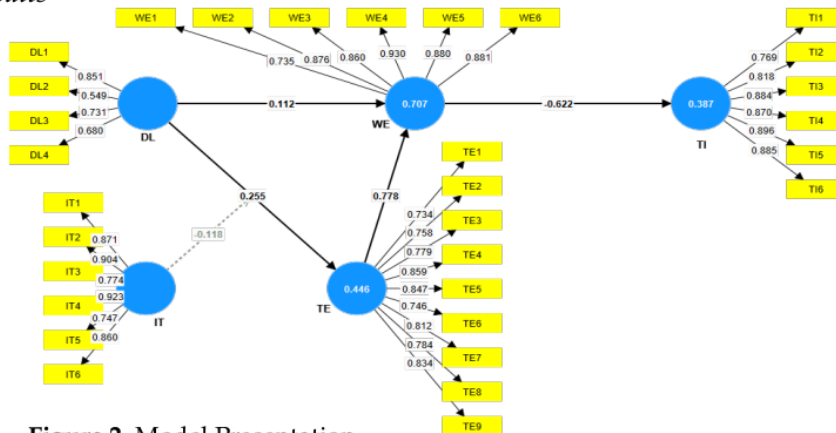


Figure 2. Model Presentation

Outer Model (Evaluation of the Measurement Model)

The purpose of the Outer Model evaluation is to assess the reliability and validity of the measurement instruments. The results (Table 2) show that most indicators (IT, TE, TI, and WE) demonstrate strong outer loadings, ranging from 0.734 to 0.930, exceeding the threshold of 0.70. However, within the DL construct, two indicators have loadings below 0.70: DL2 (0.549) and DL4 (0.680). Although these values are below the preferred threshold, they were retained for methodological and theoretical reasons. Following Hair et al. (2017), indicators with loadings between 0.50 and 0.70 may be retained when the construct demonstrates adequate convergent validity and composite reliability. In this study, the DL construct meets these criteria (AVE = 0.505; CR = 0.800). In addition, DL2 and DL4 represent conceptually important facets of distributed leadership in school settings; removing them could reduce the construct's content validity. Therefore, retaining DL2 and DL4 is justified and consistent with PLS-SEM guidelines.

Table 2. Outer Loading Measurement

Variable	Item Code	Loading Factor
Distributed Leadership	DL1	0.851
	DL2	0.549
	DL3	0.731
	DL4	0.680
Interpersonal Trust	IT1	0.871
	IT2	0.904
	IT3	0.774
	IT4	0.923
	IT5	0.747
	IT6	0.860
Teacher Efficacy	TE1	0.734
	TE2	0.758
	TE3	0.779
	TE4	0.859
	TE5	0.847
	TE6	0.746
	TE7	0.812
	TE8	0.784
	TE9	0.834
Turnover Intention	TI1	0.769
	TI2	0.818
	TI3	0.884
	TI4	0.870
	TI5	0.896
	TI6	0.885
Work Engagement	WE1	0.735
	WE2	0.876
	WE3	0.860
	WE4	0.930
	WE5	0.880
	WE6	0.881

Table 3. Results of Construct Reliability and Validity Tests

Construct	Cronbach's	CR	AVE	Description
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	Alpha			
Distributed Leadership	0.686	0.800	0.505	Adequate
Interpersonal Trust	0.922	0.939	0.721	Excellent
Teacher Efficacy	0.928	0.939	0.633	Excellent
Turnover Intention	0.926	0.942	0.731	Excellent
Work Engagement	0.930	0.945	0.744	Good

Table 3 indicates that all of the constructs have good convergent validity because their AVE values are all above 0.50 (the lowest AVE for DL is 0.505). All Composite Reliability (CR) ratings are also over 0.70, meaning that the data is quite reliable on its own. Although the Cronbach's Alpha for DL (0.686) is slightly below the 0.70 threshold. Hair et al., (2012) note that such values remain acceptable. Moreover, the adequate CR (0.8) and AVE (0.505) values further support the reliability of the construct, in accordance with common practices in PLS-SEM analysis (Hair, 2021).

Table 4. Discriminant Validity Test Results

Construct	DL	IT	TE	TI	WE
Distributed Leadership					
Interpersonal Trust	0.582				
Teacher Efficacy	0.553	0.633			
Turnover Intention	0.498	0.661	0.589		
Work Engagement	0.566	0.748	0.874	0.664	

Table 4 shows that discriminant validity is established based on the HTMT criterion. Most HTMT values are lower than the threshold of 0.85. One value slightly exceeds the threshold for TE and WE (HTMT = 0.874). However, it remains within the more lenient acceptable threshold of 0.90 as suggested by Hair et al. (2014). Therefore, discriminant validity is considered adequate for all constructs.

Inner Model (Evaluation of the Structural Model)

The aim of the Inner Model evaluation is to evaluate the stated hypotheses and assess how well the model can predict things. Prior to hypothesis testing, multicollinearity diagnostics were conducted.

Table 5. Path Coefficients

Path	B	T statistics	P values
DL -> TE	0.255	4.028	0.000
DL -> WE	0.112	2.182	0.029
IT x DL -> TE	-0.118	2.386	0.017
DL -> WE ->			
TI	-0.070	2.083	0.037
DI -> TE ->			
WE	0.198	3.842	0.000

⁴ The data in Table 5 signal that DL has a positive and statistically significant effect on TE ($\beta = 0.255$, $p < 0.001$). The path coefficient of 0.255 marks a strong relationship between DL and TE.

¹² The results further show that DL has a significant effect on WE, with a path coefficient of 0.112 ($p = 0.029$). This demonstrates that DL practices directly influence WE.

⁶ Additionally, the moderating influence of IT on the relationship between DL and TE is significant, with a negative coefficient of -0.118 ($p = 0.017$). This reveals that the impact of DL on TE becomes less pronounced as IT among teachers increases.

¹⁴ The results also reveal a significant indirect effect of DL on TI through WE, with a path coefficient of -0.070 ($p = 0.037$). This indicates that improvements in DL, facilitated by increased WE, lead to a decrease in TI.

¹⁴ Finally, the indirect effect of DL on WE through TE is significant, with a path coefficient of 0.198 ($p < 0.001$). This provides evidence of a Resource Gain Spiral, where Organizational Resources (DL) enhance Personal Resources (TE), which in turn positively impacts Work Engagement (WE).

Discussion

²¹ This discussion aims to interpret the empirical findings validated by the structural model within the theoretical frameworks of Conservation of Resources (COR) Theory and the Job Demands-Resources (JD-R) Model with a specific focus on school leadership and teacher development processes. The results illustrate how distributed leadership, as a school-based leadership practice, contributes to reducing turnover intention by strengthening key educationally relevant personal resources—namely teaching efficacy and work engagement. In the context of vocational education, these resource dynamics operate through daily instructional practices, collaborative teaching cultures, and professional interactions among teachers, stressing the central role of leadership in shaping sustainable teaching environments and supporting teacher retention.

The Dual Role of Distributed Leadership as a Resource and Its Transmission Mechanism

This study strongly corroborates the idea that distributed leadership functions as a vital organizational resource, influencing teacher outcomes through independent dual mechanisms. Firstly, DL is found to significantly enhance TE. This finding is consistent with prior research, like the study by Cai et al., (2023) which underscores that distributed and empowered leadership approaches furnish instructors with essential mastery experiences and vicarious learning. (Cai et al., 2023). Exposure to shared leadership responsibilities directly strengthens teachers' self-efficacy and professional competence.

Cai et al. (2023), Choi (2023), and Ross (2016) highlight that distributed leadership enhances self-efficacy, a crucial mediator in improving teaching performance. Recent advances in distributed leadership research highlight evolving theoretical perspectives and practical strategies for school leadership implementation (Nadeem, 2024). Schaufeli (2021) further supports this idea, noting that leadership practices influence both the cognitive and emotional domains of teachers' work lives, improving both efficacy and engagement.

54 Secondly, the study reveals that DL positively influences WE. This conclusion aligns with the JD-R Model, identifying DL as a valuable job resource that fulfills teachers' essential psychological requirements, including autonomy and a sense of purpose. Bakker, A. B., & Demerouti (2016) state that job resources, such as leadership, on work engagement, increase motivation and overall job satisfaction. S. Liu et al. (2016) also suggest that resource networks, such as distributed leadership, positively influence teacher engagement by strengthening the personal resources required for teachers' development and retention. This dual role of DL establishes it as a multi-dimensional intervention affecting both the cognitive-belief domain (efficacy) and the affective-motivational domain (engagement), highlighting its comprehensive role in teacher development and retention (W. Schaufeli, 2021a).

Critical Mediation Chain: Validation and Extension of the Resource Gain Spiral

The structural model successfully confirms a series of layered mediations functioning as a definitive Resource Gain Spiral. TE emerges as the primary and strongest predictor in fostering WE. This observation reinforces the core conclusions of Cai et al. (2023), highlighting TE as a crucial mediator. This outcome validates the COR principle that the acquisition of one personal resource (efficacy) effectively triggers the accumulation of another (engagement). This implies that securing efficacy is a fundamental prerequisite before high levels of engagement can be realized.

Furthermore, WE is found to be a significant psychological bridge in mitigating TI. This finding regarding WE's powerful role as a retention force is highly consistent with other studies in educational contexts, including the work by Kavgacı & Öztürk (2023), which identified WE as a critical mechanism for reducing TI. High engagement reflects an abundant personal resource reservoir, which buffers teachers against stress and the risk of resource loss associated with leaving the organization. The mediation is classified as partial, which provides empirical grounding for the full serial mediation path (DL → TE → WE → TI), proving that the entire resource transmission mechanism works effectively and sequentially.

The Most Significant Contribution: The Interpersonal Trust Paradox and the Refinement of COR Theory

The most important theoretical addition of this study is that it looks into the distinctive significance of IT. First, IT has a larger direct effect on TE than DL. This complements the discussion by (Cai et al., 2023) on the importance of trust, by providing explicit empirical evidence that the Social Resource (peer-to-peer trust) is a more authoritative source of efficacy reinforcement than the Organizational Resource (formal leadership initiatives). This is consistent with Bilal (2022), contending that trust within educational institutions is a pivotal factor influencing teacher effectiveness and organizational achievement.

6 Secondly, and most critically, the study reveals a negative moderating effect of IT on the relationship between DL and TE, which is interpreted as a resource saturation effect. Practically, this suggests that when interpersonal trust is already high, additional distributed leadership aimed at strengthening basic teaching efficacy may yield diminishing returns; therefore, leadership efforts should be redirected toward higher-level challenges such as curriculum innovation, interdisciplinary teaching coordination, mentoring novice teachers, strengthening professional learning communities through

lesson study, and building industry-linked learning partnerships to improve instructional quality. This negative moderation implies that when the social resource (IT) is abundant—providing strong psychological support and validation—the marginal benefit of organizational resources (DL) for increasing efficacy may saturate. In line with COR Theory, this finding provides empirical evidence of a “synergy ceiling,” indicating that under conditions of resource affluence, resources may partially substitute for one another rather than consistently reinforcing each other. Managerially, this highlights the importance of adaptive leadership resource allocation. The moderating effect of IT on Teacher TE is also supported statistically ($\beta = -0.118$, $p = 0.017$), underscoring the need to consider trust levels when implementing distributed leadership strategies.

CONCLUSION

Fundamental Finding : Grounded in COR Theory, this study successfully validated a structural model examining the dynamics of teacher turnover intention in private vocational high schools (SMK). The findings demonstrate that DL functions as a significant organizational resource, exerting a positive effect on TE ($\beta = 0.255$, $p < 0.001$) and directly enhancing WE ($\beta = 0.112$, $p = 0.029$). These results indicate that leadership practices in school settings contribute both cognitively and motivationally to teachers’ professional functioning. Furthermore, the results confirm a sequential mediation mechanism consistent with a resource gain spiral. TE significantly mediates the relationship between DL and WE ($\beta = 0.198$, $p < 0.001$), while WE, in turn, mediates the relationship between DL and TI ($\beta = -0.070$, $p = 0.037$). This pattern underscores the central role of personal resources—particularly efficacy and engagement—in translating leadership practices into reduced turnover intention. IT emerged as a critical social resource shaping the boundary conditions of leadership effectiveness. The significant negative moderation effect of IT on the relationship between DL and TE ($\beta = -0.118$, $p = 0.017$) provides empirical evidence of a resource saturation effect. This finding suggests that when interpersonal trust among teachers is already high, the marginal contribution of leadership practices to strengthening efficacy diminishes. Notably, this moderating effect was observed for efficacy rather than for work engagement, indicating that efficacy is the more sensitive personal resource within the leadership–trust dynamic. Overall, these findings suggest that effective teacher retention strategies in vocational education should prioritize the development of personal resources—especially teaching efficacy and work engagement—while recognizing that high levels of interpersonal trust define the boundary conditions under which leadership interventions operate most effectively.

Implication : The findings of this study have important implications for educational practice, especially in vocational schools (SMK). School leaders should focus on distributing leadership responsibilities across teachers and staff to empower them, enhancing teacher efficacy and engagement, which in turn leading to lower turnover rates. This study also emphasizes the significance of fostering leadership and trust among colleagues, as both play a critical role in strengthening the relationships between leadership practices and engagement.

Limitation : This study, while offering significant insights, has several limitations. (1) The cross-sectional design constrains the capacity to deduce causal linkages temporally. (2) The study depended on self-reported data, which could lead to biases such as social

desirability or common method variance. Additionally, the sample was limited to private vocational schools in Surakarta, and the findings may not be generalizable to other regions or educational contexts.

Future Research : Future studies are encouraged to test this model in public vocational schools and general secondary schools to examine whether similar resource dynamics emerge across different institutional contexts. Comparative research across public and private school types may further clarify how governance structures and organizational conditions influence leadership effectiveness. Additionally, longitudinal research designs could strengthen causal interpretations of the resource gain spiral and the resource saturation effect. Future research may also study alternative moderating variables, such as organizational justice or professional autonomy, to further refine the boundary conditions of distributed leadership in educational settings.

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