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The Effect of Knowledge Sharing and Training on Unit Performance through Employee Competence at PT Permodalan Nasional Madani (PNM) Subang Branch

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A R T I C L E I N F O

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A B S T R A C T

This study aims to examine the effect of knowledge sharing and training on unit performance through employee competence as an intervening variable at PT Permodalan Nasional Madani (PNM) Subang Branch. The study was motivated by the critical phenomenon where human resource development initiatives significantly increased during 2023-2025, yet organizational risk metrics paradoxically escalated, as reflected in the rising Loan at Risk (LAR) ratio from 12% to 33%. This research applied a quantitative approach using an explanatory research design. Data were collected through structured questionnaires distributed to 200 operational employees selected via purposive sampling. The collected data were analyzed using Structural Equation Modeling based on Partial Least Squares (SEM-PLS) with SmartPLS 4 software. The empirical findings indicate that both knowledge sharing and training have a positive and significant effect on employee competence and unit performance. Employee competence also exerts a strong direct influence on unit performance. Furthermore, mediation analysis confirms that employee competence positively and significantly mediates the structural paths from both knowledge sharing and training toward unit performance. The structural framework successfully explains 85.2% of the variance in employee competence and 90.2% of the variance in unit performance. The study concludes that human resource interventions must shift focus from pure activity volume to tactical risk-mitigation competencies to systematically control loan portfolio quality and secure sustainable unit outcomes

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INTRODUCTION

Strategic human capital management serves as an important foundation for organizational sustainability, productivity, and competitive advantage in modern knowledge-based economies. In the microfinance and microcredit sectors, institutions operate in demanding environments that require field personnel to balance customer acquisition with disciplined credit risk management. PT Permodalan Nasional Madani (PNM), an Indonesian state-owned enterprise, plays an important role in community empowerment and poverty alleviation through the provision of ultra-micro financing under its structured Mekaar group-lending model. The nature of this model, which involves high mobility and continuous interaction with customers in the field, requires field personnel, particularly Account Officers (AO) and Senior Account Officers (SAO), to possess adequate competencies to verify credit information, assess customers' creditworthiness, and manage potential credit risks effectively. Therefore, organizational learning practices, including knowledge sharing and systematic training, are important mechanisms for developing and strengthening employees' competencies and adaptability (Armstrong & Taylor, 2023; Dessler, 2024; World Economic Forum, 2025).

Empirical observations at PNM Cabang Subang during the 2023-2025 period indicate a gap between the development of human resource activities and credit portfolio quality. Participation in knowledge sharing activities increased from 328 participants in 2023 to 1,210 participants in 2025, while loans outstanding increased from Rp439.843 billion to Rp504.273 billion. However, this growth was accompanied by a deterioration in portfolio quality, as total outstanding Loan at Risk (LAR) increased from Rp51.983 billion to Rp166.660 billion. The LAR ratio also increased from 12% in 2023 to 29% in 2024 and reached 33% by the end of 2025. This divergence suggests that the expansion of learning activities and the credit portfolio has not necessarily been accompanied by a corresponding improvement in employees' ability to apply knowledge and training in managing credit risks in the field.

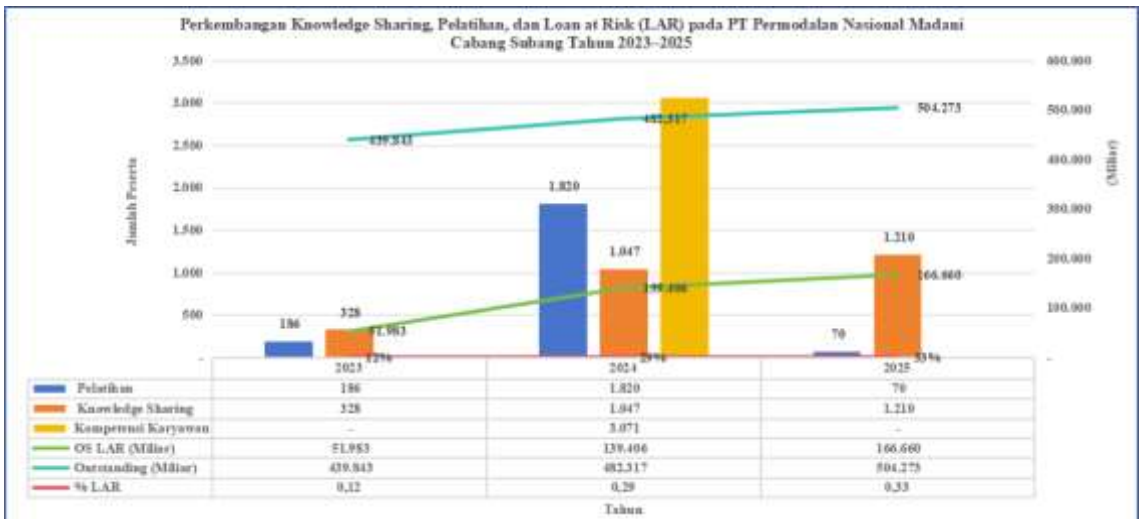


Figure 1. Development of Knowledge Sharing, Training, and Loan at Risk (LAR) at PNM Subang Branch, 2023-2025
Source: PNM Subang branch data, 2023-2025.

Previous studies on human resource management have generally examined knowledge sharing, training, employee competence, and organizational performance in broader organizational or conventional business contexts. This leaves a research gap concerning how knowledge sharing and training contribute to unit performance through employee competence within the specific operational context of group-lending microfinance. Accordingly, this study examines the influence of knowledge sharing and training on unit performance, with employee competence serving as a mediating variable (Azhari & Priyono, 2022; Kucharska & Erickson, 2023; Munawaroh, 2024; Yeboah, 2023).

LITERATURE REVIEW

Knowledge-Based View (KBV) and Human Capital Theory

This study integrates the Knowledge-Based View (KBV) of the firm and Human Capital Theory as its theoretical foundations. The KBV emphasizes knowledge as a strategically important organizational resource that can contribute to the creation and sustainability of competitive advantage. From this perspective, organizations create value by coordinating, integrating, and applying knowledge possessed by their members to develop collective capabilities. Human Capital Theory complements the KBV by emphasizing that investments in employees' knowledge, skills, and capabilities, including through education and training, can enhance their productive capacity. In an organizational context, knowledge sharing and training can therefore contribute to the development of employee competence, which subsequently supports the achievement of organizational and operational objectives (Becker, 1964; Grant, 1996; Kogut & Zander, 1992; Schultz, 1961).

Knowledge Sharing

Knowledge sharing refers to the process through which employees exchange information, knowledge, experiences, and practical skills with one another within an organization. Through this process, individual knowledge can be transferred and made available to other employees, thereby supporting learning, coordination, and problem-solving. In this study, knowledge sharing is measured through four dimensions: knowledge donating, knowledge collecting, communication frequency, and field collaboration. Effective knowledge sharing can facilitate the exchange of operational experiences, improve coordination among employees, and help field personnel respond to challenges encountered in their daily activities (Arsanti et al., 2024; Davenport & Prusak, 1998; Fadilla et al., 2024; Nonaka & Takeuchi, 1995; Ratulian et al., 2024).

Training

Training refers to a planned and systematic process designed to improve employees' knowledge, skills, and abilities so that they can perform their jobs effectively and meet established performance standards. In this study, training is measured through four indicators: material relevance, simulation and practical methods, instructor quality, and training transfer. Effective training enables employees to understand operational procedures, strengthen their technical

capabilities, and apply the knowledge and skills acquired during training to their work activities. This is particularly relevant for field personnel who are required to follow operational procedures while adapting to changes in systems and work requirements (Blanchard & Thacker, 2023; Goldstein & Ford, 2002; Noe, 2020; Sung & Choi, 2014).

Employee Competence

Employee competence refers to the combination of knowledge, skills, abilities, and behavioral characteristics that enable individuals to perform their jobs effectively. In the context of microfinance operations, employee competence includes the ability to understand lending procedures, interact and negotiate with customers, assess creditworthiness, and manage potential credit risks. Competence is important because it represents the employees' capacity to apply knowledge and skills in actual work situations. Thus, employee competence can serve as an important mechanism through which knowledge sharing and training are translated into effective workplace performance (Boyatzis, 1982; Handayani et al., 2025; Kurniawan et al., 2023; Setiawati et al., 2023; Spencer & Spencer, 1993).

Unit Performance

Unit performance refers to the extent to which an organizational unit achieves its established targets and operational objectives while maintaining the expected level of performance quality and effectiveness. In the context of microfinance operations, unit performance can be reflected in the achievement of business targets, the quality of the credit portfolio, the effectiveness of operational activities, and the ability of employees to work collaboratively in achieving unit objectives. In this study, unit performance is measured through indicators related to target achievement, operational effectiveness, teamwork, and credit risk management, including the control of non-performing loans (NPL) or Loan at Risk (LAR). The achievement of unit performance is closely related to the capabilities and competence of employees who carry out operational activities at the unit level (Pangestika et al., 2023; Robbins & Judge, 2023).

Research Hypotheses

Based on the theoretical foundations and the proposed relationships among the research constructs, this study formulates the following hypotheses:

H1: Knowledge sharing has a positive and significant effect on employee competence.

H2: Training has a positive and significant effect on employee competence.

H3: Knowledge sharing has a positive and significant effect on unit performance.

H4: Training has a positive and significant effect on unit performance.

H5: Employee competence has a positive and significant effect on unit performance.

H6: Employee competence mediates the relationship between knowledge sharing and unit performance.

H7: Employee competence mediates the relationship between training and unit performance.

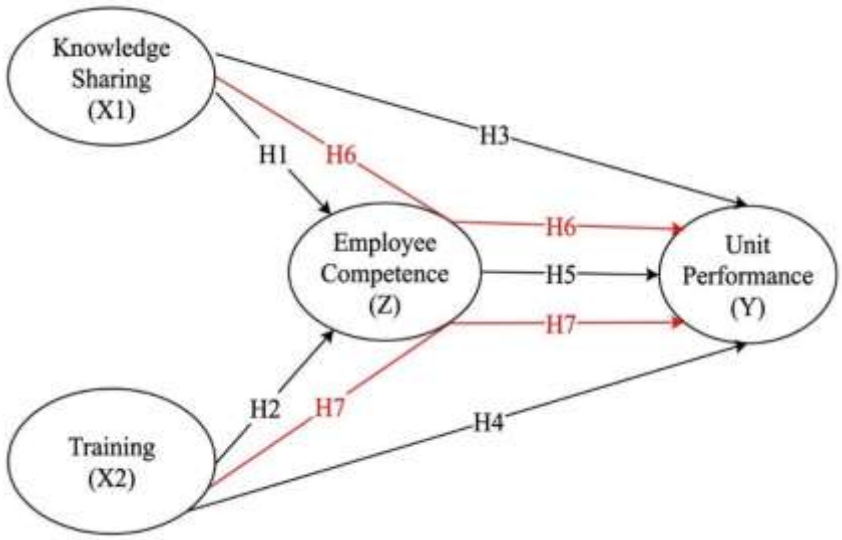


Figure 2. Research Model

METHODS

This study employed a quantitative approach with an explanatory research design to examine the relationships among the research constructs. The population consisted of 558 active employees at PNM Cabang Subang. A sample of 200 respondents was selected using non-probability purposive sampling. The inclusion criteria required respondents to be active employees who had participated in internal training and knowledge-sharing activities. The sample consisted of 6 Heads of Mekaar Units (KUM), 69 Senior Account Officers (SAO), 33 Finance Administration Officers (FAO), and 92 Account Officers (AO).

Primary data were collected using a structured online questionnaire based on a five-point Likert scale, ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The measurement model comprised four constructs measured through 32 indicators. The structural relationships among the constructs were analyzed using Structural Equation Modeling based on Partial Least Squares (SEM-PLS) with SmartPLS 4 software. The analytical procedures included the evaluation of the measurement model (outer model) and the structural model (inner model) to assess the validity, reliability, and hypothesized relationships among the constructs (Bougie & Sekaran, 2025; Hair et al., 2022; Sugiyono, 2022).

RESULTS

Outer Model Evaluation

The reflective measurement model was evaluated based on convergent validity, discriminant validity, and internal consistency reliability. Convergent validity was assessed using outer loadings and Average Variance Extracted (AVE), while internal consistency reliability was evaluated using Cronbach's Alpha and Composite Reliability (rho_c).

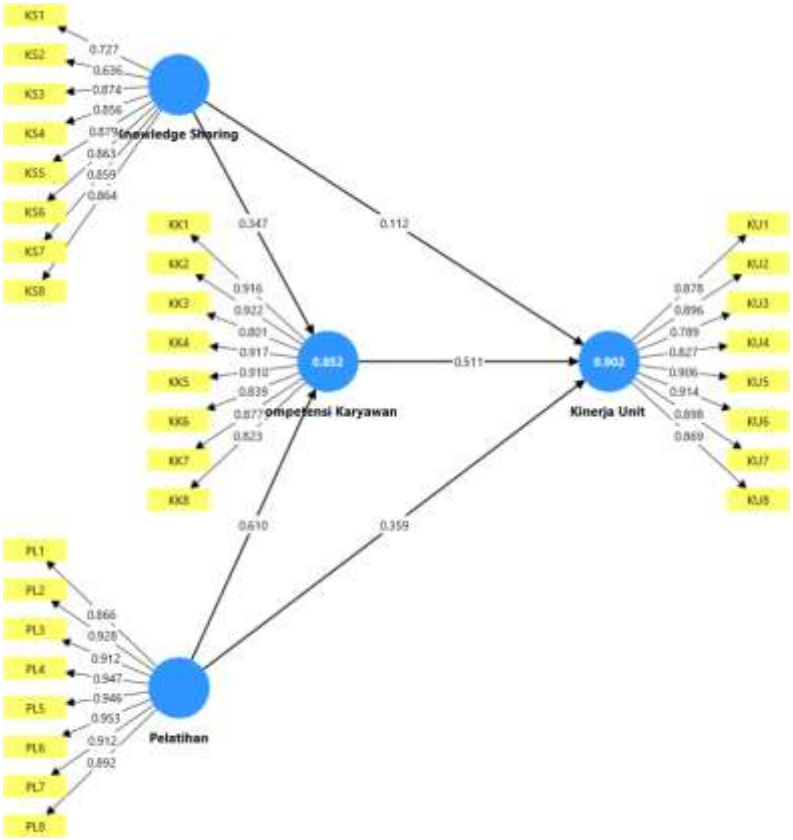


Figure 3. Outer Model
Source: SmartPLS 4 Test Results (2026)

Table 1: Convergent Validity and Latent Reliability Summary

Construct	Indicator	Factor Loading	Cronbach's Alpha	Composite Reliability (rho_c)	AVE
Knowledge Sharing	KS1 - KS8	0.636 - 0.879	0.931	0.944	0.679
Training	PL1 - PL8	0.866 - 0.953	0.974	0.978	0.846
Employee Competence	KK1 - KK8	0.801 - 0.922	0.957	0.964	0.769
Unit Performance	KU1 - KU8	0.789 - 0.914	0.955	0.962	0.762

The results in Table 1 indicate that the outer loadings range from 0.636 to 0.953. Although most indicators have loadings above the commonly recommended threshold of 0.70, KS1 has a loading of 0.636. This value is below 0.70 but remains above 0.60 and can be retained when the construct demonstrates adequate convergent validity and reliability. The AVE values range from 0.679 to 0.846, exceeding the minimum threshold of 0.50 and therefore supporting convergent validity. Furthermore, all Cronbach's Alpha and Composite Reliability values exceed 0.70, indicating satisfactory internal consistency reliability (Hair et al., 2022).

Discriminant validity was assessed using the discriminant validity results, including the cross-loading matrix. The results indicate that each indicator has a stronger loading on its respective construct than on the other constructs, supporting discriminant validity. In addition, the Variance Inflation Factor (VIF) values were within the acceptable range, indicating that the structural model was not affected by problematic multicollinearity (Hair et al., 2022).

Inner Model Evaluation and Hypothesis Testing

The structural model was evaluated using the coefficient of determination (R^2) to assess the explanatory power of the model. Employee Competence obtained an R^2 value of 0.852, indicating that Knowledge Sharing and Training jointly explain 85.2% of the variance in Employee Competence, while the remaining 14.8% is explained by factors outside the model. Unit Performance obtained an R^2 value of 0.902, indicating that Knowledge Sharing, Training, and Employee Competence jointly explain 90.2% of the variance in Unit Performance, with the remaining 9.8% attributable to other factors not included in the model.

Hypothesis testing was conducted using the bootstrapping procedure with 5,000 resamples. The significance of each structural relationship was evaluated based on the path coefficient (β), T-statistic, and P-value. At the 5% significance level, a hypothesis was considered supported when the P-value was below 0.05 and the direction of the coefficient was consistent with the proposed hypothesis (Hair et al., 2022).

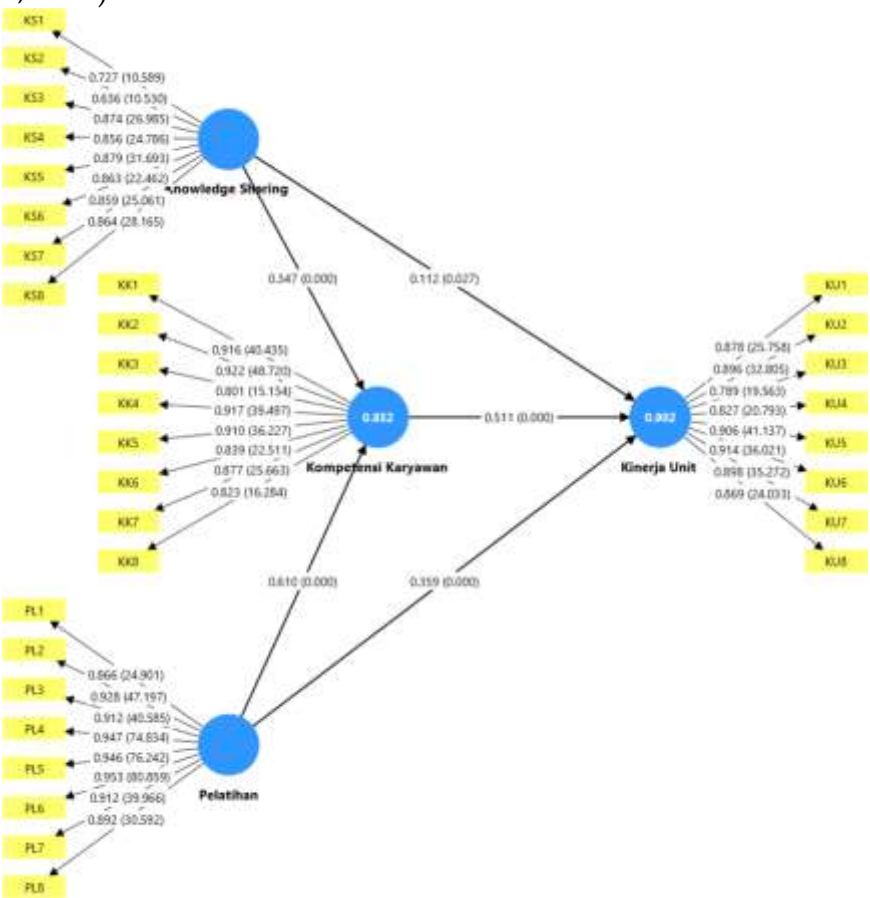


Figure 4. Outer Model
Source: SmartPLS 4 Test Results (2026)

Table 2: Path Coefficients Result Summary

Hypotheses	Structural Link Path	Coefficient (β)	T-Statistic	P-Value	Result
H1	Knowledge Sharing → Employee Competence	0.347	4.940	0.000	**Accepted**
H2	Training → Employee Competence	0.610	8.667	0.000	**Accepted**
H3	Knowledge Sharing → Unit Performance	0.112	1.981	0.027	**Accepted**
H4	Training → Unit Performance	0.359	4.234	0.000	**Accepted**
H5	Employee Competence → Unit Performance	0.511	6.408	0.000	**Accepted**
H6	Knowledge Sharing → Employee Competence → Unit Performance	0.178	3.927	0.000	**Accepted**
H7	Training → Employee Competence → Unit Performance	0.312	4.991	0.000	**Accepted**

The results in Table 2 show that Knowledge Sharing has a positive and significant effect on Employee Competence ($\beta = 0.347$; $T = 4.940$; $p < 0.05$), supporting H1. Training also has a positive and significant effect on Employee Competence ($\beta = 0.610$; $T = 8.667$; $p < 0.05$), supporting H2. The coefficient indicates that Training has a stronger estimated relationship with Employee Competence than Knowledge Sharing within the proposed model.

Knowledge Sharing has a positive and significant effect on Unit Performance ($\beta = 0.112$; $T = 1.981$; $p = 0.027$), supporting H3. Training also has a positive and significant effect on Unit Performance ($\beta = 0.359$; $T = 4.234$; $p < 0.05$), supporting H4. Furthermore, Employee Competence has a positive and significant effect on Unit Performance ($\beta = 0.511$; $T = 6.408$; $p < 0.05$), supporting H5. These findings indicate that employee competence is positively associated with the achievement of unit-level performance outcomes.

The indirect effects further support the proposed mediation relationships. Employee Competence significantly mediates the relationship between Knowledge Sharing and Unit Performance ($\beta = 0.178$; $T = 3.927$; $p < 0.05$), supporting H6. Employee Competence also significantly mediates the relationship between Training and Unit Performance ($\beta = 0.312$; $T = 4.991$; $p <$

0.05), supporting H7. These findings indicate that the contribution of Knowledge Sharing and Training to Unit Performance is partly transmitted through the development of Employee Competence.

The structural results can also be considered alongside the descriptive findings. Respondents reported relatively strong perceptions of knowledge sharing and training transfer, which are consistent with effective execution of routine operational activities, including loan disbursement processing (KU2 = 4.09). However, lower scores were observed for field-level proactive risk identification (KK6 = 3.95) and the control of the branch's Loan at Risk (LAR) portfolio (KU3 = 3.76). These descriptive findings suggest that operational strengths in routine execution do not necessarily translate into equally strong performance in credit risk management. Therefore, the findings provide a basis for strengthening training and knowledge-sharing activities related specifically to creditworthiness assessment, early risk identification, and default prevention (Astika et al., 2025; Fitriani, 2025; Handayani et al., 2025; Kumalasari & Yoga, 2022; Mardlillah & Rahardjo, 2017; Murtiningsih et al., 2024; Pratiwi, 2021; Rahman et al., 2025; Yusuf & Laksamana, 2025).

CONCLUSIONS AND RECOMMENDATIONS

Conclusion

This study demonstrates that Knowledge Sharing and Training have positive and significant effects on Employee Competence and Unit Performance. Employee Competence also has a positive and significant effect on Unit Performance and significantly mediates the relationships between Knowledge Sharing and Unit Performance as well as between Training and Unit Performance. The inner model demonstrates substantial explanatory power, with an R^2 of 0.902 for Unit Performance.

The descriptive findings provide additional insight into the operational context of PNM Cabang Subang. While respondents reported relatively strong performance in routine operational execution, comparatively lower scores were observed for proactive field-level risk identification (KK6 = 3.95) and control of the Loan at Risk portfolio (KU3 = 3.76). These findings indicate an area for strengthening employee capabilities, particularly in credit risk identification and mitigation.

Suggestions

- For Practitioners (PNM Management): The management of PT Permodalan Nasional Madani (PNM) is encouraged to strengthen its operational training curriculum by placing greater emphasis on credit risk mitigation, creditworthiness assessment, and early detection of potential defaults. In addition, branch-level coaching sessions led by Heads of Mekaar Units (KUM) could incorporate case studies of credit defaults to strengthen the risk management capabilities of field Account Officers.
- For Future Researchers: Future studies are encouraged to expand the proposed structural framework by incorporating additional organizational variables, such as leadership style, unit-level incentive systems, and

organizational collaborative culture. Future research may also involve multiple PNM microfinance branches to provide broader empirical evidence and improve the generalizability of the findings.

FURTHER STUDY

This study still has limitations, so further research on The Effect of Knowledge Sharing and Training on Unit Performance through Employee Competence at PT Permodalan Nasional Madani (PNM) Subang Branch is needed to refine this study and enhance the insights of readers and the authors.

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