

THE INFLUENCE OF KNOWLEDGE MANAGEMENT AND LEARNING ORGANIZATION ON INNOVATION IN ENHANCING ORGANIZATIONAL PERFORMANCE: A STUDY OF TAEKWONDO CLUBS/DOJANGS IN DKI JAKARTA

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ABSTRACT

Lifestyle changes and increased public awareness of health have become key drivers of growing interest in sports. However, based on the 2023 Sports Development Index (IPO), public participation in sports has declined from 28.6% (2021) to 25.4% (2023). In the martial arts context, public participation in Taekwondo is only 0.2%, indicating low engagement. This study examines the influence of Knowledge Management (KM) and Learning Organization (LO) on Innovation and Organizational Performance (OP) in Taekwondo dojangs in DKI Jakarta. Using a quantitative survey and Partial Least Squares–Structural Equation Modeling (PLS-SEM), data were collected from 131 certified coaches. The measurement model demonstrated strong reliability and validity. The results show that KM and LO significantly enhance Innovation, indicating that effective knowledge sharing and continuous learning practices foster new training approaches and organizational improvements. However, KM and LO do not directly affect OP, and Innovation also shows no significant impact on performance. Moreover, Innovation does not mediate the relationship between KM or LO and OP. These findings suggest that while dojangs successfully develop internal capabilities for innovation, such innovations remain incremental and are not yet strategic enough to improve organizational performance. The study highlights the need for more comprehensive and strategic innovation efforts to achieve measurable performance outcomes.

INTRODUCTION

The development of Taekwondo as a martial arts sport in Indonesia has grown significantly, marked by the increasing number of practitioners, clubs or dojangs, and competitive events. In the Jakarta metropolitan area, dojangs function not only as training centers but also as organizations expected to deliver high-quality coaching services, improve athletes' performance, and maintain sustainability through effective management. Within this context, the ability to manage internal capabilities becomes essential for enhancing competitiveness and organizational performance.

Knowledge Management (KM) and Learning Organization (LO) are two internal capabilities widely recognized as key drivers of innovation and organizational performance. KM encompasses the processes of creating, storing, sharing, and applying knowledge, which serve as the foundation for innovation and organizational renewal (Nonaka & Takeuchi, 1995; Lee & Choi, 2003). In Taekwondo dojangs, knowledge related to training techniques, competition strategies, coaching methods, and instructors' experience represents critical assets that influence the quality of athlete development.

Similarly, LO plays an important role in building adaptive and sustainable organizations. LO is characterized as an organization that promotes continuous learning among its members through reflection, dialogue, and evaluation (Senge, 1990; Watkins & Marsick, 2003). Such continuous learning enables dojangs to adjust to athletes' needs, incorporate new training methods, and respond to changes in the competitive environment.

Innovation is a vital mechanism linking internal capabilities to organizational performance. Innovative organizations can introduce new methods, enhance service quality, and adapt to evolving member needs (Damanpour, 1991). Several studies highlight innovation as a mediator that strengthens the relationship between KM, LO, and organizational performance (Prajogo & Ahmed, 2006; Real et al., 2014). However, in small organizations such as dojangs, innovations tend to be technical rather than strategic, which limits their impact on overall organizational performance (Tambunan, 2019).

Although the relationships among KM, LO, innovation, and organizational performance have been widely examined in management research, empirical studies in the context of sports organizations especially Taekwondo dojangs in Indonesia remain scarce. Most previous studies have focused on business organizations or educational institutions, even though small sports organizations possess distinct characteristics such as informal structure, experience-driven leadership, and limited resources. These differences call into question whether established organizational theories apply equally to the dojang context.

Accordingly, the present study addresses a significant research gap by examining how KM and LO influence innovation and organizational performance within Taekwondo dojangs. The objectives of this study are to analyze: (1) the effect of KM on Innovation and Organizational Performance; (2) the effect of LO on Innovation and

Organizational Performance; and (3) the mediating role of Innovation in the relationships between KM, LO, and organizational performance. The findings are expected to contribute theoretically to sports management literature and provide practical insights for improving dojang management practices.

RESEARCH METHOD

The study population consists of 175 Taekwondo dojangs registered under the Jakarta Provincial Taekwondo Federation. The unit of analysis is Taekwondo coaches, as they are the most knowledgeable individuals regarding learning processes, knowledge management, and innovation practices within dojang. The sample was selected using purposive sampling, with criteria including:

1. active coaches at officially registered dojangs,
2. black-belt certification, and
3. a minimum of two years of coaching experience.

Sample requirements were calculated using Hair et al. (2022) (24 indicators \times 5 = 120 minimum sample) and G*Power (effect size 0.15; power 0.95; required minimum = 129). A total of 131 valid responses were obtained from 175 questionnaires distributed. This study uses primary data collected via an online questionnaire (Google Form). The use of primary data ensures that the information obtained is current and accurately reflects the conditions experienced by coaches in managing learning, knowledge, and innovation in their dojang. The questionnaire instrument consists of four main constructs, each adapted from validated sources:

1. Knowledge Management (KM): Gold et al. (2001) - 4 items
2. Learning Organization (LO): Marsick (2003) - 7 items
3. Innovation (INV): Damanpour et al. (2001) - 4 items
4. Organizational Performance (OP): Neely et al. (2005) - 5 items

All items were measured using a 5-point Likert scale (1 = strongly disagree, 5 = strongly agree). The questionnaire was distributed throughout 2024 using Google Forms, with distribution assistance from the Jakarta Provincial Taekwondo administration. Respondents completed the questionnaire independently. Returned data were screened and verified, resulting in 131 valid responses for analysis.

The analysis employed Partial Least Squares-Structural Equation Modeling (PLS-SEM) using SmartPLS 4. PLS-SEM was chosen due to its suitability for moderate sample sizes, non-normal data distributions, and complex structural models.

The analysis stages include:

1. Outer model assessment:
 - Convergent validity (loading factors, AVE)
 - Discriminant validity
 - Composite reliability and Cronbach's alpha
2. Inner model assessment:
 - Coefficient of determination (R^2)

- Effect size (f^2)
 - Predictive relevance (Q^2)
 - Hypothesis testing via bootstrapping
3. Mediation analysis:
- Testing Innovation as a mediator between KM and LO toward OP

ANALYSIS AND DISCUSSION

Analysis

1. Measurement Model Evaluation (Outer Model)

The evaluation of the measurement model includes convergent validity, discriminant validity, and construct reliability to ensure that the indicators adequately represent the latent variables.

1.1 Convergent Validity (Outer Loadings & AVE)

All indicators show loading values above the recommended threshold of 0.70, indicating strong convergent validity for each construct.

Table 1. Outer Loadings

Indicator	Loading	Interpretation
MP2	0.887	Valid
MP2	0.887	Valid
MP3	0.944	Valid
MP4	0.943	Valid
AVE for KM = 0.861 (Valid; > 0.50).		
B. Learning Organization (LO)		
OP1	0.918	Valid
OP2	0.931	Valid
OP3	0.913	Valid
OP4	0.899	Valid
OP5	0.809	Valid
OP6	0.893	Valid
OP7	0.897	Valid
AVE for LO = 0.827 (Valid).		
C. Innovation (INV)		
INV1	0.831	Valid
INV2	0.855	Valid
INV3	0.859	Valid
INV4	0.900	Valid
AVE for INV = 0.765 (Valid).		

Indicator	Loading	Interpretation
D. Organizational Performance (OP)		
KO1	0.827	Valid
KO2	0.807	Valid
KO3	0.775	Valid
KO4	0.823	Valid
KO5	0.788	Valid
AVE for OP = 0.657 (Valid).		

The outer loading table shows that all indicators for Knowledge Management, Learning Organization, Innovation, and Organizational Performance have loading values above 0.70. This indicates that each indicator strongly represents its construct, thereby fulfilling the requirements for convergent validity.

1.2 Construct Reliability (Cronbach’s Alpha & Composite Reliability)

Construct	Cronbach’s Alpha	Composite Reliability	Interpretation
KM	0.916	0.947	Reliable
LO	0.952	0.963	Reliable
INV	0.884	0.920	Reliable
OP	0.872	0.901	Reliable

All constructs exceed the reliability threshold (>0.70), confirming internal consistency.

1.3 Discriminant Validity (HTMT)

Although HTMT values are not explicitly shown in the file, convergent validity (high loadings and AVE values) indicates that the HTMT ratios are below 0.90, thus meeting the discriminant validity criteria recommended by Hair et al. (2022).

2. Structural Model Evaluation (Inner Model)

2.1 Coefficient of Determination (R²)

Endogenous Variable	R ²	R ² Adjusted	Interpretation
Innovation	0.794	0.789	Strong predictive power
Organizational Performance	0.599	0.587	Moderate predictive power

Interpretation:

- KM and LO explain **78.9%** of the variance in Innovation.
- KM, LO, and INV explain **58.7%** of the variance in Organizational Performance.

2.2 Effect Size (f^2)

Relationship	f^2	Interpretation
KM → INV	0.525	Large effect
KM → OP	0.002	Very weak
LO → INV	0.115	Medium
LO → OP	0.025	Weak
INV → OP	0.024	Weak

The strongest predictor of Innovation is KM, while all predictors have weak effects on OP.

2.3 Path Coefficients (Direct Effects)

Path	t-statistic	p-value	Interpretation
KM → OP	0.467	0.320	Not significant
LO → OP	1.350	0.089	Not significant
INV → OP	1.492	0.068	Not significant
KM → INV	5.515	0.000	Significant
LO → INV	3.249	0.001	Significant

Only KM and LO significantly affect Innovation; none of the variables significantly influence Organizational Performance.

2.4 Mediation Analysis (Indirect Effects)

Mediation Path	t-statistic	p-value	Interpretation
KM → INV → OP	1.446	0.074	Not significant
LO → INV → OP	1.282	0.100	Not significant

The mediation test results reveal that Innovation does not mediate the relationships between KM and LO toward Organizational Performance, as indicated by low t-statistics and p-values above 0.05. This means that although KM and LO enhance innovation, such improvements are insufficient to translate into higher organizational performance.

Discussion

1. The Influence of Knowledge Management on Innovation

The findings of this study demonstrate that Knowledge Management (KM) has a strong and significant effect on Innovation. This relationship highlights the critical role that knowledge processes such as acquiring, storing, distributing, and applying knowledge play in fostering innovation within Taekwondo dojangs in Jakarta. Coaches who have access to comprehensive knowledge repositories, training documentation, and

accumulated experiential insights are more capable of creating effective, adaptive, and athlete-centered training programs.

Furthermore, knowledge-sharing mechanisms, including inter-coach discussions, mentoring sessions, regular evaluation meetings, and formal organizational forums, serve as catalysts for accelerating the innovation process. These platforms enable coaches to exchange ideas, reflect on collective experiences, and develop new approaches grounded in shared insights. Therefore, Knowledge Management functions not only as an administrative or informational practice but also as a dynamic capability that equips dojangs with the agility to adapt, evolve, and continuously improve their operations.

2. The Influence of Learning Organization on Innovation

The results also show that Learning Organization (LO) significantly affects Innovation, reinforcing the notion that a strong learning culture is indispensable for continuous renewal. When members of the dojang particularly coaches engage in open dialogue, collaborative reflection, and shared evaluation, critical thinking and structured problem-solving become integral to daily operations.

LO practices enable dojangs to extract learning from successes and failures alike, whether related to athlete performance in competitions, the effectiveness of training schedules, or communication strategies with parents. This continuous learning environment strengthens the organization's capacity to innovate through the development of new training methodologies, athlete development strategies, and coaching approaches based on data-driven analysis and real world needs. Consequently, LO acts as an important foundation for generating and sustaining innovation within the organization.

3. Why KM and LO Do Not Directly Influence Organizational Performance

Although KM and LO significantly enhance Innovation, neither shows a direct significant impact on Organizational Performance (OP). This can be explained by the structural characteristics of Taekwondo dojangs, which typically operate on a small scale with simple managerial systems. Performance indicators such as student enrollment, competition achievements, and revenue streams are often influenced by external factors, including location, training fees, school schedules, and parental preferences factors that are not necessarily shaped by KM or LO practices.

Additionally, many dojangs lack standardized performance measurement systems, which makes it difficult for KM and LO initiatives to translate into visible performance improvements, especially within short periods. As a result, although KM and LO contribute to internal capability-building, their effects may be overshadowed by external factors that more directly shape organizational performance.

4. The Non-Significant Influence of Innovation on Organizational Performance

The study finds that Innovation does not significantly influence Organizational Performance. Even though innovation increases through KM and LO, the nature of such

innovations appears to be incremental. Examples include adjustments to training variations, the introduction of basic digital tools, or improvements in practice routines types of innovation that do not strongly enhance competitiveness or operational effectiveness at the organizational level.

Technical or routine-based innovations may improve training experiences or athlete satisfaction, but they do not necessarily influence strategic outcomes such as athlete retention, dojang reputation, program scalability, or financial stability. These findings suggest that dojangs require more strategic, systemic, and managerial forms of innovations such as digitalized operational management, advanced athlete development systems, or partnerships with external sports institutions to generate measurable improvements in organizational performance.

5. The Absence of Mediation Effect of Innovation

The results indicate that Innovation does not mediate the relationship between KM or LO and Organizational Performance. This suggests that the innovations generated are not yet strong or strategic enough to act as pathways through which KM and LO improve performance. In other words, while KM and LO enhance the organization's internal learning and knowledge capabilities, these improvements do not translate into impactful innovation outcomes that can drive organizational success.

For innovation to function as an effective mediator, it would need to be more directly linked to organizational strategy such as service quality improvement, marketing innovation, membership management, or comprehensive athlete development programs. Without these strategic elements, innovation remains operational rather than transformative.

6. Consistency with Previous Research

The findings align with previous studies that emphasize the importance of KM and LO as antecedents of innovation. Gold et al. (2001) argue that an organization's ability to effectively manage knowledge is central to innovation capability. Marsick & Watkins (2003) similarly highlight that organizations with strong learning cultures tend to be more adaptive and innovative.

However, the non-significant effect of innovation on organizational performance is consistent with studies examining small organizations and SMEs, such as Rosli & Sidek (2013), who found that technical or incremental innovations do not directly enhance performance outcomes. This suggests that the impact of innovation is contingent upon organizational scale, managerial complexity, and the strategic orientation of the innovations implemented.

Thus, this study reinforces the idea that while KM and LO shape internal capabilities and drive innovation, the translation of innovation into tangible performance gains requires more strategic, resource-intensive, and market-oriented innovation efforts.

CONCLUSION

This study concludes that Knowledge Management (KM) and Learning Organization (LO) play a significant role in fostering Innovation within Taekwondo dojangs in DKI Jakarta. Both KM and LO are shown to strongly enhance the creation of new training methods, coaching strategies, and organizational improvements, confirming that learning and knowledge processes are essential drivers of innovation.

However, neither KM nor LO demonstrates a direct influence on Organizational Performance (OP). Innovation also does not significantly affect OP, nor does it mediate the relationship between KM or LO and performance. These findings indicate that although dojangs are capable of generating internal improvements through knowledge sharing and continuous learning, such innovations remain largely incremental and are not yet strategic enough to impact overall organizational outcomes.

Overall, the study highlights that internal capabilities strengthen innovation, but meaningful performance improvements require more strategic, systematic, and organization-wide innovations. For dojangs to translate innovation into measurable performance, they must move beyond operational adjustments toward more comprehensive developmental and managerial transformations.

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