



Organizational Learning, Competitiveness, and Performance: Empirical Evidence from Small and Medium Cooperatives in Malaysia

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Abstract

This study investigates the empirical impact of organizational learning (OL) dimensions on the competitiveness, innovation capability, and performance of Small and Medium Cluster Cooperatives in Malaysia. Grounded in the Resource-Based View (RBV) and dynamic capabilities framework, a quantitative survey was administered across six geographic zones in Malaysia, obtaining 576 usable cooperative responses. Data were analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The findings demonstrate that information interpretation, distribution, and storage significantly enhance cooperative competitiveness and innovation. Surprisingly, information acquisition showed no statistically significant direct impact on either competitiveness or innovation. Both competitiveness and innovation were found to positively and significantly drive financial and non-financial performance. Practical and policy implications are discussed to guide cooperative leaders, regulators, and support agencies toward fostering effective internal learning ecosystems.

Keywords: *Organizational Learning, Dynamic Capabilities, Cooperative Competitiveness, Cooperative Performance, PLS-SEM, Malaysia*

1. Introduction

Cooperatives play a vital socio-economic role in Malaysia by serving as instruments for community economic empowerment, poverty reduction, and wealth distribution. Despite comprising over 15,000 registered cooperatives, the majority remain in small and medium clusters (annual turnover between RM200,000 and RM5 million) and struggle to compete with agile private enterprises. In the contemporary digital and volatile economy, relying purely on traditional operations is insufficient. Cooperatives require dynamic capabilities to continuously acquire, assimilate, and exploit knowledge to stay competitive. While extensive literature highlights the positive association between organizational learning (OL) and firm performance in corporate settings, empirical evidence focusing on cooperatives particularly within developing economies remains limited. Cooperatives possess a unique dual economic-social mandate and a democratic governance structure ("one member, one vote"), making corporate management models not directly transferrable. This study fills this gap by examining how specific OL dimensions (acquisition, distribution, interpretation, and storage) directly affect cooperative competitiveness and innovation, and indirectly shape financial and non-financial outcomes.

2. Literature Review and Conceptual Framework

2.1 Resource-Based View (RBV) and Dynamic Capabilities

According to the RBV (Barney, 1991), sustainable competitive advantage stems from internal resources that are valuable, rare, inimitable, and non-substitutable. Extending this, Dynamic Capabilities Theory (Teece, 2018) posits that firms must dynamically reconfigure internal capabilities to meet changing environments. In cooperatives, organizational learning represents an essential intangible capability that converts raw member and market information into strategic value.

2.2 Organizational Learning Dimensions

Following Pérez López et al. (2005), organizational learning is operationalized as a four-stage process:

- **Information Acquisition:** Gathering data from external and internal sources.
- **Information Distribution:** Sharing knowledge across units and management levels.



- **Information Interpretation:** Analyzing and creating shared understanding from distributed data.
- **Information Storage (Organizational Memory):** Archiving knowledge into databases, procedures, and routines for future retrieval.

2.3 Organizational Learning and Competitiveness

From the perspective of dynamic capabilities theory, organizational learning strengthens the sensing (identifying opportunities) and seizing (capturing opportunities) phases, thereby enhancing competitiveness (Teece, 2018). A study by Nawaz and Gomes (2020) also revealed that organizational learning enhances competitive advantage directly through process improvements and indirectly through innovation. This analysis reinforces the argument that organizational learning not only yields internal efficiency, but also drives a market advantage that is difficult for competitors to replicate. The relationship between organizational learning and competitiveness has been empirically proven in various recent studies. Maclean et al. (2023) found that each dimension of organizational learning contributes significantly to a firm's competitive strategy as well as overall organizational performance. The processes of knowledge acquisition and distribution foster product and process innovation, whereas knowledge interpretation assists in making strategic and adaptive decisions.

2.4 Organizational Learning and Innovation

Organizational learning has been identified as a key catalyst for innovation across various organizational contexts. This relationship stems from an organization's capability to identify, absorb, and apply new knowledge, which in turn stimulates the creation of innovative ideas, products, processes, or approaches (Flores et al., 2021; Jiménez-Jiménez & Sanz-Valle, 2021). In the digital and VUCA (volatility, uncertainty, complexity, ambiguity) era, continuous learning has become a strategic necessity to ensure the sustainability of competitiveness through innovation.

2.5 Competitiveness and Performance

Competitiveness is a critical factor that determines the extent to which an organization can sustain long-term success. The Resource-Based View (RBV) theory introduced by Barney (1991) explains that sustainable competitive advantage can only be achieved when an organization possesses and manages resources that meet the VRIN criteria: valuable, rare, inimitable, and non-substitutable. A study by Wanyama (2020) demonstrates that cooperatives with superior competitiveness are better positioned to maintain member loyalty and foster community growth. Strategic resources may encompass member trust and support, robust governance structures, management experience and expertise, as well as social capital embedded within the community. When managed efficiently and leveraged optimally, these resources provide a competitive advantage that is difficult for other cooperatives to replicate, particularly in an increasingly challenging competitive environment.

2.6 Innovation and Performance

Innovation is one of the keys determining factors in enhancing the performance of any organization, including cooperatives. Innovation has proven to be a primary driver of performance, particularly in volatile environments. According to Hervás-Oliver et al. (2021), product and process innovations exert a direct impact on sales growth and operational effectiveness. Meanwhile, a study by Anwar and Abdullah (2021) emphasizes that in small organizations, innovation serves as a vital mechanism to convert organizational learning into a competitive advantage. Within the context of cooperatives, innovation encompasses various dimensions, including product innovation, process innovation, market innovation, and managerial innovation. Previous studies demonstrate that continuously implemented innovation can strengthen a cooperative's market position, enhance competitiveness, and yield a positive impact on both its financial and non-financial performance.

2.7 Research Hypotheses

- H_{1a-1d} : Information acquisition (a), distribution (b), interpretation (c), and storage (d) positively influence cooperative competitiveness.



- H_{2a-2d} : Information acquisition (a), distribution (b), interpretation (c), and storage (d) positively influence cooperative innovation.
- H_3 & H_4 : Cooperative competitiveness positively influences financial (H_3) and non-financial (H_4) performance.
- H_5 & H_6 : Cooperative innovation positively influences financial (H_5) and non-financial (H_6) performance.

3. Methodology

3.1 Sampling and Data Collection

A stratified random sampling strategy was used across six geographical zones in Malaysia (Northern, Central, Southern, Eastern, Sabah, and Sarawak) targeting 600 small and medium cooperatives. Self-administered questionnaires were distributed to cooperative board members and key management personnel. After removing multivariate outliers via Mahalanobis distance ($p < 0.001$), 576 valid responses were retained. Based on the sample size determination table by Krejcie and Morgan (1970), for a population of 600, the minimum sample size that needs to be collected is 234 samples.

3.2 Common Method Bias (CMB)

Harman's Single Factor Test was performed to address common method variance. The first factor accounted for 38.30% of total variance, which is below the 50% threshold, confirming that common method bias was not a critical issue in this study.

3.3 Measurement Scale

All constructs were measured using multi-item 5-point Likert scales adapted from validated literature (Pérez López et al., 2005; Buang et al., 2023).

4. Data Analysis and Results

Partial Least Squares Structural Equation Modeling (PLS-SEM) was employed via SmartPLS to evaluate measurement and structural models.

4.1 Measurement Model Assessment

Convergent validity and internal consistency reliability were confirmed:

- **Outer Loadings:** Most items exceeded the threshold of 0.708 (low-loading items were deleted).
- **Composite Reliability (CR):** Values ranged from 0.814 to 0.950, exceeding the 0.70 benchmark.
- **Average Variance Extracted (AVE):** Values ranged from 0.514 to 0.821, exceeding the 0.50 benchmark.
- **Discriminant Validity:** All Heterotrait-Monotrait (HTMT) ratios were strictly below 0.85, establishing construct distinctiveness.

4.2 Structural Model and Hypothesis Testing

Path	Hypothesis	t-Value	p-Value	Result
Info Acquisition → Competitiveness	H_{1a}	0.127	0.449	Not Supported
Info Distribution → Competitiveness	H_{1b}	2.825	0.002	Supported



Path	Hypothesis	t-Value	p-Value	Result
Info Interpretation → Competitiveness	H_{1c}	5.983	0.000	Supported
Info Storage → Competitiveness	H_{1d}	7.565	0.000	Supported
Info Acquisition → Innovation	H_{2a}	0.767	0.222	Not Supported
Info Distribution → Innovation	H_{2b}	1.995	0.023	Supported
Info Interpretation → Innovation	H_{2c}	5.997	0.000	Supported
Info Storage → Innovation	H_{2d}	7.086	0.000	Supported
Competitiveness → Financial Performance	H_3	5.316	0.000	Supported
Competitiveness → Non-Financial Perf.	H_4	10.376	0.000	Supported
Innovation → Financial Performance	H_5	5.559	0.000	Supported
Innovation → Non-Financial Perf.	H_6	8.657	0.000	Supported

4.3 Explanatory Power (R^2) and Predictive Relevance (Q^2)

- **Financial Performance:** $R^2 = 0.721$ (Strong), $Q^2 = 0.654$.
- **Non-Financial Performance:** $R^2 = 0.437$ (Moderate), $Q^2 = 0.389$.
- **Competitiveness:** $R^2 = 0.377$ (Moderate), $Q^2 = 0.324$.
- **Innovation:** $R^2 = 0.355$ (Moderate), $Q^2 = 0.289$.

All Q^2 values were above zero, confirming substantial predictive relevance.

5. Discussion

The structural results yield crucial insights into cooperative management dynamics. Internal learning processes namely **Information Distribution**, **Interpretation**, and **Storage** exert a significant positive impact on competitiveness and innovation capabilities. Proper documentation, shared mental models, clear communication channels, and centralized customer/operational databases enable cooperatives to rapidly make informed decisions and improve service delivery. Conversely, **Information Acquisition** was found to be non-significant. This unexpected finding suggests that gathering external knowledge alone yields minimal value for small and medium cooperatives if they lack the internal absorptive capacity or digital mechanisms to turn raw external data into strategic actions. Many Malaysian cooperatives passively collect information via mandatory courses or seminars but fail to institutionalize or translate this external knowledge internally. Finally, the strong paths linking competitiveness and innovation to financial and non-financial metrics confirm that internal learning-driven adaptations directly reflect in operational efficiencies, governance standards, member satisfaction, and surplus growth.



6. Conclusion and Implications

6.1 Managerial Implications

- **Cooperative Board & Management:** Cooperatives must build robust internal filing, customer databases, and digital memory systems. Knowledge sharing between experienced board members and executive staff should be institutionalized through internal debriefing sessions and cross-functional teams.

6.2 Policy and Institutional Recommendations

- **Suruhanjaya Koperasi Malaysia (SKM):** SKM should re-evaluate existing mandatory education frameworks (such as GP 5 guidelines) to focus on outcome-based, practical knowledge translation rather than mere seminar attendance. Furthermore, introducing an Innovation Grant Scheme can incentivize cooperatives to deploy technology-driven solutions.
- **Institut Koperasi Malaysia (IKMa) & ANGKASA:** Transition training offerings from short generic courses to direct, tailored incubation programs ("Cooperative Innovation Bootcamps") and establish a national Cooperative Innovation Index.

6.3 Future Research Directions

Although this study makes a meaningful contribution to understanding the relationship between organizational learning, competitiveness, and cooperative performance, several limitations ought to be noted. The scope of organizational learning in this study focuses on only four dimensions: information acquisition, information distribution, information interpretation, and organizational memory. This limitation may constrain a holistic understanding, as other dimensions such as experiential learning, risk-taking, and transformational leadership have also been proven in the literature to be essential elements in shaping competitiveness (Serrat, 2020; Argote, 2020). This limitation likely accounts for the finding that the information acquisition dimension was not significant toward competitiveness. Future research is recommended to expand the model by incorporating these additional dimensions to test whether they strengthen the relationship between organizational learning and cooperative competitiveness. Second, this study focuses solely on small and medium cooperatives, excluding micro and large cooperatives. This constraint limits the generalizability of the findings to a specific segment, whereas large cooperatives may possess broader resources for information acquisition, and micro cooperatives may rely entirely on individual experience. Future research should conduct comparative studies across various cooperative categories to identify differences in organizational learning levels across operational scales. Third, external factors such as government policies, technological advancements, and market competition levels were not explicitly included in the model. However, these factors have the potential to moderate or mediate the relationship between organizational learning, competitiveness, and performance. Future research is advised to integrate external variables such as the level of digitalization, government policy support, or leadership styles to yield a more comprehensive picture of organizational learning's role in enhancing cooperative capabilities. By linking these study limitations to future directions, subsequent research can contribute to stronger theoretical development and provide broader practical implications for the cooperative movement in Malaysia.

7. References

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