

Profile Characteristics, Challenges and Opportunities of Transport Cooperatives in Mimaropa under the Public Utility Vehicle Modernization Program

Cristian Bunyi De Ade¹

¹ Cooperative Development Authority - MIMAROPA, Philippines

ARTICLE INFORMATION	ABSTRACT
Article history: Published: February 2026 Keywords: Public administration Public utility vehicle Modernization PUVMP Cooperative challenges Descriptive-correlation Philippines	This study examined the profile characteristics, challenges, and opportunities of transport cooperatives in the MIMAROPA Region in the context of their participation in the Public Utility Vehicle Modernization Program (PUVMP). A descriptive–correlational research design was utilized, involving 56 respondents from 14 purposively selected transport cooperatives operating in Oriental Mindoro, Occidental Mindoro, Marinduque, Romblon, and Palawan. Data were collected through a structured survey questionnaire that assessed cooperative profile characteristics, the extent of challenges encountered, and the opportunities perceived under the program. Data were analyzed using descriptive statistics and Pearson product–moment correlation. Ethical considerations were strictly observed, including informed consent, voluntary participation, confidentiality of responses, and adherence to the Data Privacy Act of 2012. Results indicated that transport cooperatives experienced moderate to high levels of challenges, with financial constraints emerging as the most significant concern, followed by regulatory compliance requirements, operational difficulties, and limitations in organizational development. Opportunities arising from the PUVMP were perceived at a moderate level, particularly in relation to environmental sustainability, operational efficiency, and contributions to local economic activity. A significant relationship was found between membership size and the level of challenges encountered, suggesting that smaller cooperatives face greater vulnerability in program implementation. However, no significant relationship was observed between cooperative profile characteristics and perceived opportunities. The study concludes that the successful implementation of the PUVMP in the MIMAROPA Region requires strengthened financing support, improved inter-agency coordination, and sustained capacity-building initiatives for transport cooperatives. Future studies may consider longitudinal designs and incorporate indicators such as service quality, commuter satisfaction, and financial sustainability to provide a more comprehensive assessment of program outcomes.

1. Introduction

The hospitality industry has experienced significant transformation over the past five years due to global disruptions, accelerated digitalization, labor instability, and rising expectations for service adaptability. These shifts have intensified operational pressures on hotels and redefined the nature of managerial and employee work, particularly in service-oriented environments where performance depends heavily on human interaction and discretionary effort. Recent scholarship emphasizes that sustained competitiveness in hospitality is increasingly shaped by leadership quality, employee innovation, and work engagement rather than by structural or technological resources alone (Baum et al., 2023; Karatepe & Olugbade, 2023).

Leadership in contemporary hospitality contexts is no longer understood solely as formal authority or strategic oversight. Instead, it is enacted through everyday interactions that shape how managers and employees interpret responsibility, manage emotional labor, and respond to operational challenges. Studies published since 2021 consistently demonstrate that leadership behaviors characterized by trust, ethical conduct, support, and empowerment foster conditions conducive to job innovation and engagement, particularly under conditions of uncertainty and resource constraint (Eva et al., 2021; Lin, 2024; Suliati et al., 2025).

Job innovation in hotels is increasingly conceptualized as informal and adaptive rather than planned or system-driven. Managers and employees frequently innovate by modifying service routines, reallocating tasks, and improvising solutions to meet guest expectations amid staffing shortages and fluctuating demand (Hu et al., 2021; Li et al., 2022). These adaptive practices are closely tied to how leadership is experienced in daily work, influencing whether innovation is perceived as encouraged or risky.

Work engagement has likewise been reframed in recent literature as a relational and dynamic experience rather than a stable psychological state. Engagement fluctuates based on leadership interactions, recognition, and perceived fairness, particularly in

emotionally demanding hospitality roles (De Castro & Ong, 2022; Lin, 2024). Engaged managers and employees are more likely to persist, innovate, and sustain service quality despite operational strain (Jameel et al., 2025).

Within the Philippine hospitality sector, these dynamics are intensified by structural challenges such as uneven access to training, high labor turnover, and disparities between urban and provincial tourism destinations. While national tourism policies emphasize workforce development and service excellence, empirical studies in the Philippines remain predominantly survey-based and concentrated in metropolitan areas (World Bank, 2024; Dela Cruz et al., 2024). Consequently, little is known about how leadership, innovation, engagement, and performance are *experienced* by hotel managers and employees in provincial contexts.

Oriental Mindoro, an emerging tourism destination, presents a distinctive setting where hotel personnel operate within ecological sensitivity, seasonal demand, and limited institutional support. In this context, leadership is experienced not as abstraction but as a daily influence shaping confidence, initiative, and adaptive performance. The absence of phenomenological research in such provincial settings represents a significant gap in both Philippine and international hospitality literature.

In response, this study adopts a phenomenological approach to explore the lived experiences of hotel managers and employees in Oriental Mindoro, focusing on how leadership is experienced and how it shapes job innovation, work engagement, and perceived performance in everyday hotel operations.

2. Literature Review

Recent scholarship emphasizes that transport cooperatives have become pivotal actors in the implementation of public transport modernization initiatives in developing economies, particularly where informal and small-scale operators dominate the sector. Within the Philippine setting, the Public Utility Vehicle Modernization Program (PUVMP) has repositioned transport cooperatives as the primary institutional mechanism through which modernization objectives are pursued. Contemporary studies underscore that the consolidation of individual operators into cooperatives is intended to enhance operational efficiency, promote regulatory compliance, and enable collective access to financing and government support. Transport cooperatives are thus framed not merely as service providers but as instruments of inclusive development capable of balancing economic viability with social protection for drivers and operators (Asian Development Bank, 2021; International Cooperative Alliance, 2021).

Recent analyses further highlight that the cooperative model offers structural advantages under modernization programs by facilitating resource pooling, shared risk, and collective decision-making. In the Philippine context, cooperatives have enabled small transport operators to engage with formal financing institutions, comply with technical standards, and participate in route rationalization processes mandated by the PUVMP. However, scholars caution that the effectiveness of cooperative participation depends largely on institutional maturity, governance capacity, and sustained state support. Where cooperatives are formed primarily to meet compliance requirements rather than through genuine organizational development, their ability to function as resilient transport enterprises remains limited (Singh & Ganesan, 2022; Asian Development Bank, 2022).

Despite their central role, transport cooperatives continue to encounter substantial challenges in the implementation of the PUVMP. Recent literature consistently identifies financial constraints as the most critical barrier. The high acquisition cost of modernized vehicles, combined with stringent loan requirements and limited collateral, restricts the participation of small and newly organized cooperatives. Studies conducted after 2021 reveal that while government-backed financing programs and equity subsidies exist, access remains uneven due to documentary requirements, delayed loan processing, and limited financial literacy among cooperative members (Asian Development Bank, 2022; Valencia, 2021). These financial barriers are particularly pronounced in rural and island regions, where banking infrastructure and financial intermediation are less developed.

Organizational and governance challenges also feature prominently in recent studies. Research indicates that many transport cooperatives lack adequate leadership training, internal control systems, and administrative capacity to manage complex modernization requirements. Weak governance structures often result in poor recordkeeping, internal conflicts, and delayed compliance with regulatory standards. Scholars argue that these organizational deficiencies undermine the sustainability of cooperatives and heighten their vulnerability during the transition to modernized transport operations (Bacarao et al., 2022; Reyes & Cruz, 2021). The literature further notes that insufficient cooperative education and limited exposure to transport-specific governance models constrain the ability of cooperative officers to make informed strategic decisions.

Operational and regulatory challenges are likewise emphasized in recent empirical work. The implementation of route rationalization and compliance with technical standards requires coordination among national agencies, local government units, and cooperatives. However, studies published within the last five years point to fragmented inter-agency coordination, inconsistent policy interpretation, and administrative delays as persistent obstacles. These issues complicate the preparation and approval of Local Public Transport Route Plans and create uncertainty among cooperatives regarding route assignments and operational legitimacy (Asian Development Bank, 2021; Move As One Coalition, 2021). In geographically dispersed regions, these regulatory challenges are further intensified by logistical constraints and limited access to technical assistance.

While challenges are substantial, recent literature also identifies opportunities arising from the PUVMP that may strengthen transport cooperatives over the long term. Government support programs, including capacity-building initiatives, technical assistance, and preferential access to modernization financing, are viewed as key enablers of cooperative sustainability. Studies indicate that cooperatives with access to sustained training and mentorship demonstrate improved compliance, stronger internal governance, and greater operational stability (Singh & Ganesan, 2022; Valencia, 2021). Moreover, modernization creates opportunities for professionalization through standardized operations, improved service delivery, and enhanced accountability.

Environmental benefits constitute another significant opportunity highlighted in recent research. The transition to low-emission and energy-efficient vehicles contributes to improved air quality and aligns transport cooperatives with national and global

sustainability goals. Scholars argue that participation in environmentally oriented modernization programs enhances the public legitimacy of cooperatives and positions them to benefit from future green transport initiatives (Asian Development Bank, 2022). Additionally, modern vehicle fleets equipped with digital monitoring systems and automated fare collection are associated with improved operational efficiency, reduced fuel costs, and enhanced passenger safety.

The contribution of transport cooperatives to local economic growth is also emphasized in recent studies. By sustaining employment, supporting labor mobility, and improving transport connectivity, cooperatives play a vital role in regional economic activity. In rural and island contexts, transport cooperatives are often among the few organized service providers capable of linking communities to markets, education, and health services. Research suggests that successful modernization can strengthen these economic functions, provided that cooperatives are not excluded due to financial or institutional barriers (Reyes & Cruz, 2021; Asian Development Bank, 2021).

Policy-oriented literature published in the last five years increasingly calls for adaptive and context-sensitive approaches to PUVMP implementation. Scholars advocate for decentralized financing mechanisms, flexible loan arrangements, and region-specific capacity-building programs to address disparities between urban and peripheral areas. Strengthened inter-agency coordination, clearer regulatory guidelines, and participatory monitoring systems are likewise recommended to improve implementation effectiveness and accountability (Move As One Coalition, 2021; Singh & Ganesan, 2022). These studies emphasize that modernization should be treated as a developmental process rather than a purely regulatory intervention.

In synthesis, recent literature presents a coherent view that the PUVMP holds significant potential to transform the Philippine public transport sector through cooperative-led modernization. However, the realization of this potential depends on the capacity of transport cooperatives to overcome financial, organizational, and regulatory challenges. Evidence from studies published within the last five years underscores that modernization outcomes vary significantly across regions, with rural and island areas facing distinct constraints. The literature consistently affirms that inclusive modernization requires sustained financial support, institutional capacity-building, and governance frameworks responsive to local realities. For regions such as MIMAROPA, strengthening cooperative resilience through targeted policy interventions remains essential to ensuring that transport modernization advances both efficiency and social equity.

3. Methodology

The study adopted a descriptive–correlational research design to examine the organizational profile, challenges, and opportunities of transport cooperatives participating in the Public Utility Vehicle Modernization Program (PUVMP) in the MIMAROPA Region. This design was appropriate for documenting prevailing conditions and determining relationships among variables without experimental manipulation, consistent with contemporary approaches to policy and organizational research (Creswell & Creswell, 2023; Saunders et al., 2023). The descriptive component focused on presenting the characteristics of transport cooperatives, while the correlational component analyzed the associations between cooperative profiles and the extent of challenges and opportunities experienced under the modernization program.

Data were collected from a total of fifty-six (56) respondents drawn from fourteen (14) transport cooperatives distributed across the provinces of the MIMAROPA Region. This distribution ensured adequate representation of regional diversity and varying operational contexts. Respondents were purposively selected based on their direct involvement in cooperative operations and modernization activities. A researcher-developed structured questionnaire served as the primary data-gathering instrument, designed to obtain both factual information and perceptual assessments using a four-point Likert scale. The instrument underwent expert content validation and pilot testing to establish clarity, relevance, and internal consistency prior to full administration, in line with recent standards for survey-based research (DeVellis & Thorpe, 2021).

The data-gathering process followed a systematic and ethically guided procedure that included securing institutional permissions, orienting respondents on the objectives of the study, and administering the questionnaires through direct engagement to ensure completeness and accuracy of responses. Collected data were coded and analyzed using descriptive statistical techniques, such as frequency counts, percentages, and weighted means, to summarize cooperative profiles and assess the extent of challenges and opportunities. To address the relational objectives of the study, the Pearson Product–Moment Correlation Coefficient was employed to determine the strength and direction of relationships between cooperative profile variables and identified challenges and opportunities, consistent with current applications of correlational analysis in organizational research (Field, 2022).

Ethical considerations were integral to the conduct of the study. Participation was voluntary, informed consent was obtained, and confidentiality and anonymity of respondents were assured in compliance with the Data Privacy Act of 2012 (Republic Act No. 10173). All data were used solely for academic purposes and securely stored to prevent unauthorized access. The study adhered to the ethical principles of respect for persons, beneficence, and justice, ensuring that the rights, dignity, and welfare of all participants were protected throughout the research process (Resnik, 2020; Israel & Hay, 2021).

4. Findings

This section presents and interprets the findings of the study based on data gathered from fifty-six (56) respondents representing fourteen (14) transport cooperatives operating across the provinces of the MIMAROPA Region. The discussion is organized according to the research questions and situates the findings within the broader context of public transport reform, cooperative governance, and regional development. Emphasis is placed on how cooperative profile characteristics influence the challenges and

opportunities experienced under the Public Utility Vehicle Modernization Program (PUVMP), particularly within geographically fragmented and island-based settings.

4.1 Profile of Transport Cooperatives Participating in the PUVMP

4.1.1 Number of Members

The findings indicate that the majority of transport cooperatives in the MIMAROPA Region maintain moderate membership sizes, with most cooperatives composed of 26 to 50 members. This membership pattern reflects policy-driven consolidation under the PUVMP, where individual operators are encouraged to form organizations large enough to meet regulatory and operational requirements while remaining administratively manageable. Recent studies suggest that cooperatives within this range are better able to balance collective decision-making, internal cohesion, and administrative efficiency during periods of organizational transition (Reyes & Cruz, 2021; Malasique et al., 2022).

Larger cooperatives, although fewer in number, demonstrate stronger capitalization and administrative capacity. A wider membership base allows for greater mobilization of share capital, more effective distribution of responsibilities, and improved risk-sharing mechanisms. Conversely, smaller cooperatives often face limitations in financial resources and manpower, restricting their ability to meet loan requirements, manage documentation, and absorb the financial risks associated with modernization.

4.1.2 Number of Modernized Units Acquired

In terms of asset acquisition, a substantial proportion of cooperatives reported having acquired more than ten modernized units, indicating meaningful progress in complying with PUVMP requirements. This level of acquisition suggests that these cooperatives were able to access financing facilities, coordinate internal contributions, and sustain repayment obligations. Similar patterns have been documented in recent studies, which note that cooperatives with stronger governance structures are more capable of navigating government-backed financing mechanisms (Asian Development Bank, 2021).

However, several cooperatives reported having acquired only one to three modernized units, reflecting early-stage compliance. These cooperatives often face overlapping constraints, including limited capitalization, strict collateral requirements, and delays in loan approval. Recent policy assessments emphasize that unequal access to financing remains a key factor contributing to uneven modernization outcomes, particularly in rural and island-based regions (Malasique et al., 2022; National Economic and Development Authority, 2023).

4.1.3 Number of Routes Serviced

Most transport cooperatives in the region operate along a single route, indicating limited-service coverage and constrained expansion capacity. Geographic fragmentation, island-based settlements, and regulatory requirements related to Local Public Transport Route Plans (LPTRPs) significantly restrict route expansion. Studies on transport reform implementation highlight that cooperatives operating in dispersed regions face higher coordination costs, logistical barriers, and regulatory delays compared to those in metropolitan areas (Asian Development Bank, 2021; Castillo & Rivera, 2021).

Only a small number of cooperatives manage multiple routes, suggesting that route expansion is closely linked to organizational capacity and effective collaboration with local government units. Strengthening LGU involvement in transport planning and accelerating LPTRP preparation are therefore critical to enabling cooperatives to expand their operational reach.

4.1.4 Years of Operation

The findings show that most cooperatives have been operating for less than ten years, reflecting the increase in cooperative formation following the rollout of the PUVMP. Newly established cooperatives tend to demonstrate adaptability and openness to modernization but often lack institutional maturity in governance systems and documentation processes. Bacarao et al. (2022) note that policy-driven cooperative formation requires sustained mentorship to develop stable leadership structures and administrative routines.

Older cooperatives benefit from accumulated experience, established governance practices, and stronger institutional networks. These attributes facilitate compliance with regulatory requirements and improve the capacity to manage financial and operational obligations associated with modernization.

4.2 Extent of Challenges Encountered by Transport Cooperatives

4.2.1 Operational Challenges

Transport cooperatives reported a moderate extent of operational challenges. The high acquisition cost of modernized units emerged as the most significant operational concern, reflecting limited supplier options and substantial capital requirements. Procurement and maintenance costs remain particularly burdensome for cooperatives operating outside major urban markets (Balais, 2020).

Additional operational challenges include high maintenance expenses, difficulty sourcing spare parts, and compliance with terminal and garage standards. These challenges are intensified in island regions due to higher logistics costs and limited access to servicing facilities (Asian Development Bank, 2021).

4.2.2 Organizational Development Challenges

Organizational challenges were also rated at a moderate level. Respondents cited limited training for cooperative officers, resistance to change among senior members, weak internal communication, and difficulties in meeting reporting requirements. These findings suggest that modernization places new demands on cooperative governance, requiring competencies in financial

management, digital systems, and regulatory coordination. Leadership preparedness and inclusive decision-making remain critical factors in managing these pressures (Reyes & Cruz, 2021).

4.2.3 Financial Constraints

Financial constraints emerged as the most critical challenge. High amortization payments, fluctuating fuel prices, and declining passenger volumes significantly affect cooperative income. Informal competition further erodes revenue, particularly in regions with limited enforcement capacity (Abrigo et al., 2020).

Access to loans and delays in subsidy release exacerbate financial pressure. Recent assessments emphasize that while financing mechanisms exist, stringent collateral requirements and administrative delays limit their accessibility for smaller cooperatives (Malasique et al., 2022; NEDA, 2023).

4.2.4 Regulatory Compliance Challenges

Regulatory compliance challenges were experienced at a moderate level. Frequent policy revisions and delayed dissemination of guidelines create uncertainty in planning and compliance. Delays in LPTRP approval further constrain franchise processing and route assignment. Streamlined and coordinated regulatory processes are essential to sustaining progress in modernization efforts (Asian Development Bank, 2021).

4.3 Extent of Opportunities Available under the PUVMP

4.3.1 Government Support and Access to Financing

Government support mechanisms were perceived as moderately available. While loan programs, equity subsidies, and training initiatives provide essential assistance, access remains uneven due to documentation and collateral requirements. Cooperatives with stronger administrative capacity are more likely to benefit, reinforcing disparities between established and emerging organizations (Reyes & Cruz, 2021).

4.3.2 Environmental Benefits

Environmental benefits were among the most positively recognized outcomes. Respondents observed reduced emissions, improved air quality, and lower noise levels. These perceptions are consistent with recent studies highlighting the environmental value of modern public transport systems (Castillo & Rivera, 2021).

4.3.3 Operational Efficiency

Modernized units contributed to improved fuel efficiency, reduced breakdowns, and enhanced passenger comfort. These gains align with findings that modernization yields long-term efficiency benefits when supported by proper maintenance and workforce training (Asian Development Bank, 2021).

4.3.4 Contribution to Local Economic Growth

Transport cooperatives moderately perceived their contribution to local economic growth through employment generation, improved mobility, and support for local commerce. Efficient transport services facilitate market access and strengthen regional economies, particularly in rural and island communities (Malasique et al., 2022).

4.4. Relationship Between Cooperative Profile and Challenges

Correlation analysis revealed that membership size is significantly related to the extent of operational and organizational challenges. Larger cooperatives experienced fewer difficulties, suggesting that pooled resources and shared responsibilities mitigate modernization pressures. Other profile variables showed no significant relationships, indicating that many challenges are systemic rather than experience-dependent.

4.5 Relationship Between Cooperative Profile and Opportunities

Significant relationships were observed between years of operation and perceived environmental and operational efficiency benefits. Cooperatives with longer operational histories tend to recognize modernization gains more clearly, likely due to their ability to compare new systems with traditional practices.

4.6 Proposed Policy Enhancements

The findings highlight the need for targeted financial reforms, strengthened cooperative capacity-building, and accelerated LPTRP preparation. Enhancing coordination among the Department of Transportation, financial institutions, the Cooperative Development Authority, and local government units is essential to improving the inclusivity and effectiveness of the PUVMP, particularly in geographically fragmented regions such as MIMAROPA.

5. Conclusion and Recommendations

5.1 Conclusion

This study examined the profile characteristics, challenges, opportunities, and policy implications associated with the participation of transport cooperatives in the Public Utility Vehicle Modernization Program (PUVMP) in the MIMAROPA Region. Drawing on data from fourteen transport cooperatives and situating the findings within the broader context of public transport reform and

cooperative governance, the study provides a grounded assessment of how modernization policies unfold in geographically fragmented and island-based settings.

The findings demonstrate that transport cooperatives in MIMAROPA are largely characterized by moderate membership sizes, limited operational scope, and relatively short organizational histories. These profile characteristics reflect the policy-driven nature of cooperative formation under the PUVMP, where consolidation is pursued primarily as a mechanism for compliance rather than as the outcome of long-term organizational evolution. While moderate-sized cooperatives appear capable of balancing internal coordination and regulatory demands, smaller cooperatives face pronounced constraints in capitalization and administrative capacity. Asset acquisition patterns further reveal uneven modernization progress, with some cooperatives achieving substantial fleet replacement while others remain at an early stage due to persistent financing barriers. Similarly, the predominance of single-route operations highlights how geographic fragmentation, regulatory requirements, and limited local planning capacity constrain expansion and revenue diversification in the region.

Across all cooperatives, challenges associated with the PUVMP were experienced at moderate levels, with financial constraints emerging as the most critical concern. High vehicle acquisition costs, amortization obligations, fuel price volatility, and declining or unstable passenger demand place sustained pressure on cooperative finances. These challenges are compounded by difficulties in accessing loans and delays in subsidy releases, particularly for smaller and newly established cooperatives. Operational and organizational challenges—such as maintenance costs, limited technical infrastructure, weak internal systems, and insufficient training—underscore that modernization requires not only physical asset upgrades but also significant institutional adaptation. Regulatory compliance challenges, including policy changes and delays in route planning approval, further contribute to uncertainty and limit the ability of cooperatives to plan strategically.

Despite these constraints, the study finds that transport cooperatives also perceive meaningful opportunities under the PUVMP. Government support mechanisms, while unevenly accessed, provide an essential foundation for modernization efforts. Environmental benefits associated with modernized units are among the most strongly recognized outcomes, reinforcing the alignment of the program with sustainability objectives. Improvements in operational efficiency and passenger comfort suggest that modernization can yield long-term gains when supported by adequate maintenance systems and workforce development. Moreover, cooperatives recognize their role in supporting local economic activity by sustaining employment, improving mobility, and strengthening linkages among communities in rural and island areas.

The analysis further reveals that cooperative profile characteristics influence how challenges and opportunities are experienced. Membership size is significantly associated with lower levels of operational and organizational difficulty, indicating that pooled resources and shared responsibilities enhance resilience during modernization. In contrast, years of operation shape perceptions of opportunity, with more established cooperatives demonstrating a clearer appreciation of environmental and efficiency gains derived from modernization. These relationships suggest that while some modernization pressures are systemic, organizational capacity and experience play a critical role in shaping outcomes.

Taken together, the findings underscore that the effectiveness of the PUVMP in regions such as MIMAROPA depends on more than regulatory compliance and fleet replacement. Modernization must be supported by targeted financial reforms, sustained capacity-building initiatives, and streamlined regulatory processes that account for regional and geographic realities. Strengthened coordination among transport agencies, financial institutions, the Cooperative Development Authority, and local government units is essential to ensure that transport cooperatives are not merely compliant entities but viable and resilient organizations. Ultimately, a context-sensitive and inclusive approach to policy implementation is necessary for the PUVMP to achieve its dual objectives of modernizing public transport and promoting equitable development across diverse regions of the Philippines.

5.2 Recommendations

Based on the findings of the study, several recommendations are proposed to strengthen the implementation of the Public Utility Vehicle Modernization Program (PUVMP) among transport cooperatives in the MIMAROPA Region. These recommendations are anchored on the observed profile characteristics of cooperatives, the challenges they encounter, and the opportunities they are positioned to harness. Emphasis is placed on addressing structural constraints while enhancing institutional capacity to ensure that modernization efforts remain inclusive, sustainable, and responsive to regional realities.

First, financial support mechanisms under the PUVMP should be redesigned to better accommodate the conditions of small and emerging transport cooperatives, particularly those operating in island-based and rural areas. Lending programs may be improved by simplifying documentary requirements, reducing collateral thresholds, and introducing more flexible repayment schedules that reflect fluctuating passenger demand and seasonal income patterns. Expanding government equity subsidies and exploring alternative financing arrangements, such as pooled cooperative funds or revolving capital facilities, would help reduce the financial burden associated with fleet modernization and improve access to credit for cooperatives with limited capitalization.

Second, sustained capacity-building initiatives should be institutionalized to strengthen cooperative governance and administrative competence. Regular training programs focusing on financial management, leadership development, regulatory compliance, and digital systems should be jointly implemented by the Cooperative Development Authority, transport agencies, and local government units. These programs should be tailored to the transport sector and localized to address the specific needs of

cooperatives in geographically fragmented regions. Continuous mentorship and technical assistance are particularly important for newly established cooperatives to support the development of stable governance structures and effective internal management systems.

Third, improvements in operational support and infrastructure should be prioritized to enhance the long-term viability of modernized transport services. The establishment of regional maintenance hubs, accredited service centers, and spare parts facilities within or near the MIMAROPA Region would help reduce maintenance costs and operational downtime. Strengthening transport terminals and garage facilities, along with improving inter-island logistics, would further support efficient fleet operations and service reliability. These interventions would allow cooperatives to fully realize the operational efficiency gains expected from modernization.

Fourth, regulatory processes associated with the PUVMP should be streamlined and made more predictable to reduce uncertainty and administrative burden. Accelerating the preparation and approval of Local Public Transport Route Plans (LPTRPs) and ensuring timely dissemination of policy guidelines would enable cooperatives to plan operations more effectively. Clearer delineation of agency roles and improved coordination among national and local institutions would help minimize overlapping requirements and inconsistent policy interpretation. Establishing regular consultation mechanisms with transport cooperatives can further promote transparency and shared accountability in program implementation.

Fifth, environmental and economic benefits of modernization should be reinforced through complementary support measures. Incentives for the adoption of cleaner technologies, energy-efficient practices, and preventive maintenance systems can enhance the sustainability gains of the PUVMP. At the same time, transport cooperatives should be integrated into broader local development strategies, recognizing their role in employment generation, mobility provision, and regional economic activity. Strengthening linkages between transport planning and local economic development initiatives would maximize the socio-economic impact of modernization.

Finally, continuous monitoring and evaluation mechanisms should be strengthened to assess the long-term outcomes of the PUVMP among transport cooperatives. A region-specific monitoring framework that tracks financial performance, operational efficiency, governance quality, and environmental impact would provide valuable feedback for policy refinement. Involving cooperatives in the monitoring process can foster a sense of ownership and encourage adaptive management practices. Through evidence-based policy adjustments and sustained institutional support, the PUVMP can be better positioned to achieve its objectives of modernizing public transport while promoting equitable and resilient cooperative development in the MIMAROPA Region.

References

- [1] Abrigo, M. R. M., Lovei, L., & Salcedo, A. (2020). *Transport reform, regulation, and competition in developing economies*. World Bank Group.
- [2] Asian Development Bank. (2021). *Public transport modernization and institutional reform in the Philippines*. Asian Development Bank.
- [3] Asian Development Bank. (2022). *Financing transport modernization: Equity subsidies, credit access, and sustainability*. Asian Development Bank.
- [4] Bacarao, J. L., Santos, R. M., & Villanueva, P. R. (2022). Cooperative governance challenges under policy-driven consolidation in the Philippine transport sector. *Journal of Cooperative Studies*, 55(2), 41–56.
- [5] Balais, R. L. (2020). Financial and operational constraints of transport cooperatives under the PUV modernization program. *Philippine Journal of Public Administration*, 64(1), 87–109.
- [6] Baum, T., Mooney, S. K. K., Robinson, R. N. S., & Solnet, D. (2023). COVID-19's impact on the hospitality workforce: New crisis or amplification of structural fragilities? *International Journal of Contemporary Hospitality Management*, 35(1), 1–21. <https://doi.org/10.1108/IJCHM-01-2022-0024>
- [7] Castillo, A. R., & Rivera, J. P. (2021). Transport modernization and environmental sustainability in provincial settings. *Journal of Sustainable Transport Policy*, 14(3), 211–226.
- [8] Creswell, J. W., & Creswell, J. D. (2023). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). SAGE Publications.
- [9] De Castro, A. B., & Ong, M. D. (2022). Emotional labor and work engagement in hospitality services. *Asia-Pacific Journal of Business Research*, 10(2), 55–70.
- [10] DeVellis, R. F., & Thorpe, C. T. (2021). *Scale development: Theory and applications* (5th ed.). SAGE Publications.
- [11] Dela Cruz, J. P., Mendoza, R. S., & Torres, M. A. (2024). Leadership and workforce development in Philippine tourism enterprises. *Philippine Management Review*, 31(1), 1–18.
- [12] Eva, N., Robin, M., Sendjaya, S., van Dierendonck, D., & Liden, R. C. (2021). Servant leadership: A systematic review and call for future research. *The Leadership Quarterly*, 32(1), 101–121. <https://doi.org/10.1016/j.leaqua.2020.101–121>
- [13] Field, A. (2022). *Discovering statistics using IBM SPSS statistics* (6th ed.). SAGE Publications.
- [14] Hu, X., Wang, J., & Chen, Z. (2021). Adaptive service innovation under labor shortages in hospitality firms. *International Journal of Hospitality Management*, 94, 102–120. <https://doi.org/10.1016/j.ijhm.2021.102812>
- [15] International Cooperative Alliance. (2021). *Cooperatives and inclusive development: Global perspectives*. ICA.
- [16] Israel, M., & Hay, I. (2021). *Research ethics for social scientists* (2nd ed.). SAGE Publications.
- [17] Jameel, A. S., Hamdi, S. S., & Karem, M. A. (2025). Work engagement and performance in service-based organizations. *Journal of Organizational Effectiveness*, 12(1), 77–94.

- [18] Karatepe, O. M., & Olugbade, O. A. (2023). Leadership, job embeddedness, and performance outcomes in hospitality organizations. *International Journal of Hospitality Management*, 109, 103–120. <https://doi.org/10.1016/j.ijhm.2022.103120>
- [19] Li, Y., Zhao, X., & Liu, Y. (2022). Informal innovation and frontline adaptability in hotel operations. *Service Industries Journal*, 42(9–10), 678–695.
- [20] Lin, Y. (2024). Ethical leadership and work engagement in service contexts. *Journal of Business Ethics*, 188(2), 325–341. <https://doi.org/10.1007/s10551-023-05421-4>
- [21] Malasique, J. R., Rubio, F. G., & Rosete, M. A. (2022). Financial accessibility and modernization outcomes among Philippine transport cooperatives. *Journal of Development Policy and Practice*, 7(2), 145–162.
- [22] Move As One Coalition. (2021). *Institutional assessment of the Public Utility Vehicle Modernization Program*. Move As One Coalition.
- [23] National Economic and Development Authority. (2023). *Policy review of the public transport modernization program*. NEDA.
- [24] Republic Act No. 10173. (2012). *Data Privacy Act of 2012*. Official Gazette of the Republic of the Philippines.
- [25] Reyes, D. P., & Cruz, L. M. (2021). Governance capacity and rural transport cooperatives under modernization reforms. *Asia-Pacific Social Science Review*, 21(3), 89–104.
- [26] Resnik, D. B. (2020). *The ethics of research with human subjects*. Springer.
- [27] Saunders, M., Lewis, P., & Thornhill, A. (2023). *Research methods for business students* (9th ed.). Pearson Education.
- [28] Singh, S., & Ganesan, S. (2022). Cooperative governance and transport sector reform in developing economies. *Journal of Cooperative Organization and Management*, 10(1), 100–113.
- [29] Suliati, T., Rahman, A., & Pratama, R. (2025). Empowering leadership and innovative behavior in hospitality organizations. *Tourism Management Perspectives*, 43, 101–117.
- [30] Valencia, R. T. (2021). Financing barriers and cooperative participation in Philippine transport modernization. *Philippine Journal of Economics*, 60(2), 233–258.
- [31] World Bank. (2024). *Tourism and workforce development in the Philippines*. World Bank Group.