Public Transport Modernization Program in Nueva Ecija: Benefits, Challenges, and Recommendations in Transitioning from Traditional to Modern Public Utility Jeepney

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Abstract: The study examines the transition of transport cooperatives in Nueva Ecija under the Public Transport Modernization Program (PTMP), a national initiative to overhaul the Philippines' public transport system. The study explores the cooperative-operated routes and highlights issues such as the more considerable vehicle acquisition costs, complicated regulations, financing issues, and lack of government coordination. Quantitative cost-benefit analysis (CBA) had been done for both traditional and modern jeepney operations. The results showed the building of long-term advantages such as improved financial sustainability, fuel efficiency, and customer satisfaction at the expense of initial modernization costs. As a guide to the unmodernized cooperatives in evidence-based systematic modernization, the research proposes a local transition framework. To ensure an inclusive, sustainable, and financially viable uptake of the PTMP in rural communities, this research provides policymakers, local government authorities, and transport stakeholders with handy insights.

Keywords: Public Transportation Modernization Program (PTMP), Socioeconomic Factor, Cost-Benefit Analysis, Public Utility Jeepney (PUJ), Process Framework

1. INTRODUCTION

Transport is an important livelihood for millions of Filipinos, each one depending on the traditional Public Utility Jeepney (PUJ), especially in rural and semi-urban areas. Such vehicles are unsafe in their present state, possess obsolete technology, and have higher emissions than the prescribed limit (DOTr, 2017; Guno et al., 2021). To provide a solution, in 2017, the Philippine Government launched the Public Utility Vehicle Modernization Program (PUVMP), which has now evolved into a more general PTMP. To safety the passengers' lives from accidents, reduce emissions, and make operations efficient, issues of expensive capital outlay in purchasing a vehicle, unreliable regulation, and no form of regional supporting system must be addressed by the PTMP. Rural province cooperatives such as Nueva Ecija are the most vulnerable since they might lack capital or technical assistance. There are also cultural and socioeconomic reasons for arising hesitations concerning the newly modernized vehicles. This study analyzes the transitions and problems with transportation cooperatives in Nueva Ecija under the PTMP through a qualitative attempt and quantitative CBA to identify key challenges to modernization and assess the long-term sustainability of the transition. The study offers a process framework to guide unmodernized cooperatives through a formalized and localized process of modernization.

2. REVIEW OF RELATED LITERATURE

The PTMP was launched in 2017. It aims to modernize the aging system of public transportation in the Philippines by changing safer, more viable, and environmentally friendly vehicles in exchange for traditional jeepneys. Fleet consolidation, route simplification, and the use of Euro-4 or electric vehicles equipped with GPS, CCTV, and automated fare systems are the primary objectives of the program (DOTr, 2017).

The program includes the potential of helping reduce greenhouse gas emissions, enhance commuter safety, and standardize operations, according to studies. Nevertheless, researchers such as Tacderas et al. (2021) and Biona et al. (2017) point out enduring obstacles consisting of the high cost of purchasing a car (₱1.6 – 2.5 million), the lack of infrastructure for charging, and the difficulty small operators face in obtaining financing.

Despite the cooperative model, which is essential for the implementation of the PTMP, has helped in execution, it faces coordination challenges and regulatory burdens. Socioeconomic constraints such as boundary systems and daily income instability make complicated transition efforts (Agaton et al., 2020; Vallespin et al., 2024). Resistance is also the cause of the lack of participatory policy-making and the cultural significance of traditional jeepneys, according to Guno et al. (2021).

International initiatives including those in Brazil and Bangladesh show the advantages of implementing policies gradually and inclusively. The majority of research, yet, lacks regional frameworks for rural regions such as Nueva Ecija. Through the provision of a transition process model based on the actual experiences of transport cooperatives, this study fills that knowledge gap.

2.1 Synthesis and Justification

The study demonstrates that despite the PTMP promises improved operational effectiveness, environmental sustainability, and safety, its implementation continues to be uneven, especially in rural areas like Nueva Ecija. The benefits of urban environments which are often overlooked are the special challenges faced by provincial cooperatives, such as their lack of institutional support, cultural resistance, and limited financial capacity.

Socioeconomic factors which make things difficult for operators to participate include boundary systems and variable daily wages. Despite the existence of assistance programs, small-scale stakeholders often do not have access to them or are unable to obtain enough of them. Even though the cooperative model is ideal in theory, it has difficulties to meet regulatory requirements and coordinate internally.

Previous studies conducted have shown the importance for gradual, localized transition frameworks. However, few provide helpful manuals designed for rural areas. This study addresses that gap by combining actual Nueva Ecija transport cooperative experiences and constructing a context-specific process model to guide non-transitioned routes. It provides helpful guidance for more adaptable and inclusive modernization policies.

2.2 Theoretical Framework

This study, which investigates the effectiveness of Nueva Ecija's PTMP implementation, was based on stakeholder theory and CBA.

The CBA is a methodical approach in evaluating whether the long-term advantages of modernized jeepneys, such as lower the emissions, increased the commuter's safety, and the

operational effectiveness, it justifies the financial strains on cooperatives, including the high vehicle acquisition and maintenance costs.

In support, the Stakeholder Theory (Freeman, 1984) shows how important the stakeholders, such as the cooperatives, governmental organizations, drivers, and commuters, determine whether the program succeeds or fails. The interests, abilities and levels of participation of stakeholders have a direct impact on modernization's viability and sustainability.

In combination, these frameworks have provided a multifaceted perspective to understanding the social dynamics and economic trade-offs that influence the PTMP results in rural areas such as Nueva Ecija.

2.3 Statement of the Problem

The main objective of this research is to develop a process framework based on the benefits, challenges, and recommendations of the Public Transport Modernization Program (PTMP) for adapted cooperative-operated routes, serving as a guide for routes that have not yet transitioned in Nueva Ecija.

Specifically, the study will address the following:

1. identify the PTMP's current progress in Nueva Ecija, with focus on cooperative-operated routes;
2. discuss the socioeconomic factors that hinder the routes that have not yet transitioned in adapting the modernization program;
3. identify the challenges faced by the cooperative-operated routes in the transition period;
4. conduct a cost-benefit analysis of the transition from traditional to modern public utility jeepney; and
5. develop a process framework for transitioning routes.

2.4 Conceptual Framework

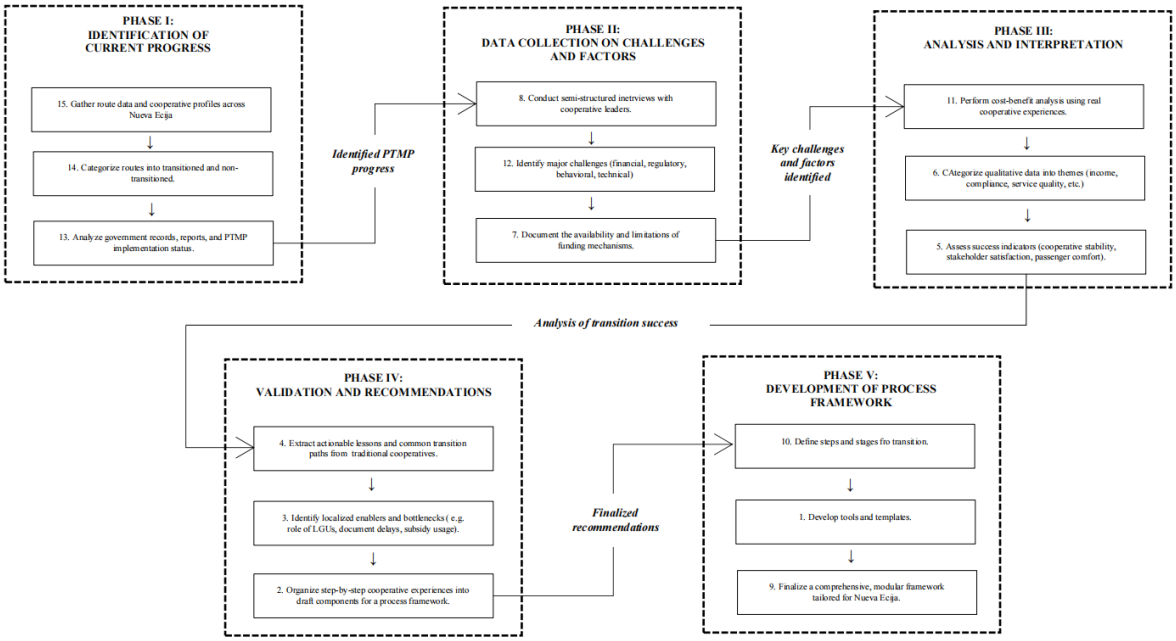

Figure 1. Conceptual framework

2.5 Significance of the Study

This study seeks to provide insight into the challenges and implementation of the PUVMP in Nueva Ecija. The Land Transportation Franchising and Regulatory Board (LTFRB), operators, cooperatives, and commuters are all intended to benefit from the package. By addressing adoption barriers, cost-benefit implications, and sustainable alternatives, cooperatives will have easy access to feasible suggestions for conserving program implementation, implementing into consideration alternative approaches to solve operational problems, and possibly improving the level of participation.

In addition, the transport operators and cooperatives will understand the potential financing and process procedures engaged in the transformation. The study will serve as an excellent basis for future researchers who desire to investigate any long-term effects of modernizing transportation and potential ways to lower adoption barriers in other fields.

2.6 Scope and Limitations

The study focuses on the experiences regarding Nueva Ecija cooperatives and transport operators with the Public Utility Vehicle Modernization Program. Operators who are currently making the transition on the modernized routes and those who will not be interviewed in-depth, emphasizing the main factors which affected their choices.

However, the study is limited to the experiences within Nueva Ecija and therefore excludes other regions where PUVMP is implemented. Additionally, while it examines socioeconomic, regulatory, and behavioral factors, the study does not include quantitative assessments of operational performance or financial outcomes. It is further limited in that it will examine existing narratives but cannot verify the actual implementation or effectiveness of the recommendations and framework proposed.

3. METHODOLOGY

3.1 Identification of Current Progress of PTMP in Nueva Ecija

This study identified the current status of modernization in the province by mapping transitioned and non-transitioned cooperative-operated routes. This was accomplished by doing interviews with transport cooperative leaders and examination of LTFRB and LGU reports.

3.2 Data Collection on Socioeconomic and Regulatory Challenges

The researchers have conducted semi-structured interviews with key stakeholders, including the cooperative leaders, jeepney drivers, and local government officials, in order to investigate the main challenges preventing the transition of modernizing public transportation. Besides regulatory issues such as franchise consolidation requirements, permit processing delays, and LTFRB compliance policies, there were discussions referring to the socioeconomic restrictions represented by capital acquisition, operational delays, and income instability. These qualitative data thereby provided important insights into the institutional and financial constraints encountered during the advancement process.

3.3 Cost-Benefit Analysis of Transition

CBA was done to consider the economic feasibility of switching from the old PUJs to the modern-day PUVs. Data were gathered from cooperating cooperatives for both operational and financial aspects. The study looked into prospective income generation, operational efficiency improvements, and environmental costs against capital expenditures, loan amortization, maintenance, and fuel costs. Specifically, the CBA was conducted for: Estimating NPV over a 7-year period of operation

3.4 Validation of Findings and Recommendations

The finding was then validated through interviews and consultations with transport cooperatives and PTMP implementing personnel. This step ensured that the proposed solutions accurately reflected on-the-ground realities and aligned with the operational experiences and institutional perspectives of key stakeholders.

3.5 Development of a Process Framework for Transitioning Routes

The objective of this phase was to create an organized framework for assisting cooperatives and facilitate the transition. Hence, different transitional phases were identified, including cooperative development, documentation compliance, loan acquisition, and vehicle acquisition. Furthermore, some important tools and templates were also developed to complement the modernization process, including financial forms, compliance checklists, and route classification aids. Together, the thematic findings were integrated to form a framework that is flexible enough to address the ever-changing needs of the cooperatives in Nueva Ecija.

3.6 Research Design

The modernization and transition of transport systems in Nueva Ecija has been studied using qualitative research design. An exploratory method is used to draw out opinions from the cooperative leaders and operators through interviews, observation, and document analysis. To strengthen the analysis, a quantitative CBA was also conducted using real cooperative data to assess the financial viability of modern PUV operations, highlighting both challenges and potential under the current PTMP framework.

3.7 Research Setting

The study was conducted within Nueva Ecija, which focused on different transportation routes. These routes include those that have undergone varying extent of implementation of the PTMP-completed, ongoing, or not yet started. The setting included areas considered crucial for public transportation, such as the terminals, routes, and offices of cooperatives.

3.8 Data Gathering Procedure

The purpose of this study was to collect comprehensive and reliable information on modernizing transportation. Its purposive sampling was used to find respondents, which included cooperative leaders, drivers, and operators. Potential respondents gave their consent, guaranteeing confidentiality. Semi-structured interviews were used in gathering data, during which participants shared their perspectives and experiences. In order to monitor the operations and vehicle conditions, observations were made along routes and terminals. To supplement the

data, pertinent documents were taken into consideration. By exchanging the ideas with interested parties and confirming the accuracy of the interpretation, preliminary results were confirmed. The accuracy, context, and utility of the data were guaranteed by this back-and-forth method.

3.9 Data Gathering Instrument

Qualitative data was gathered and examined using different kinds of instruments. Respondents' were assisted by a semi-structured interview guide, which included specific sections which highlighted their backgrounds, challenges that they had encountered, advantages that they observed, and recommendations that may improve the modernization program. Important aspects of the transportation routes were identified by the observation checklist, such as the infrastructure, vehicle condition, and operational effectiveness. In order to find the relevant additional information, a document review template was also used to carefully examine the relevant paperwork, including the funding of sources, cooperative plans, and policy documents. These instruments have also made it easier for people to understand how the modernization program was being implemented and how it affected cooperatives.

4. PRESENTATION, ANALYSIS, AND INTERPRETATION OF DATA

4.1 Profile of Participants

The study revealed varying levels of participation in the PTMP among 17 transport cooperatives in Nueva Ecija. Of these, 10 had initiated the transition, with some starting as early as 2020. The number of modernized units acquired varied—some cooperatives had only 1 or 2 units, while others, such as Zaragoza Ramstar and Rizal Public Market Vendors and Farmers Multipurpose Cooperative, had acquired more, suggesting greater financial capacity or access to resources. In contrast, 7 cooperatives had not begun the transition and possessed no modern units, likely due to limited funding, inadequate support, or lack of awareness about the program. This disparity underscores the need for targeted government assistance to ensure more inclusive program participation.

Cooperative Name	Municipality	Route Coverage	Transition Status	No. of Units Acquired	Year of Initiation
Fort Magsaysay-Cabanatuan City Transport Service Cooperative	Cabanatuan City	Fort Magsaysay-Cabanatuan City	Transition	1	2025
Gabaldon Transport Cooperative	Gabaldon	Gabaldon-Cabanatuan City	Transition	4	2022
Gajoda Transport Service Cooperative	Gapan City	Gapan- San Leonardo- Sta. Rosa - Cabanatuan City	Transition	6	2024
Guimba-Cabanatuan City Transport Service Cooperative	Guimba	Guimba- Talavera -Cabanatuan City	Transition	2	2024
Tarlac-Guimba Transport Service Cooperative	Guimba	Tarlac-Guimba	Non-Transition	-	-

Laur Transport Service Cooperative	Laur	Laur-Cabanatuan City	Non-Transition	-	-
Licajoda Transport Cooperative	Licab	Licab-Quezon-Cabanatuan City	Non-Transition	-	-
Llajoda Transport Service Cooperative	Llanera	Llanera-Talavera-Cabanatuan City	Non-Transition	-	-
Palayan City Transport Cooperative	Palayan City	Palayan-Cabanatuan City	Transition	2	2024
Quezon Transport Cooperative	Quezon	Quezon-Sto.Domingo-Talavera-Cabanatuan City And San Jose City - Science City of Muñoz- Talavera-Cabanatuan City	Transition	2	2025
Rizal Public Market Vendors and Farmers Multipurpose Cooperative	Rizal	Rizal-Llanera-Talavera-Cabanatuan City	Transition	18	2020
Rizal-Cabanatuan Transport Service Cooperative	Rizal	Rizal-Cabanatuan City	Transition	7	2023
SAGACA (San Antonio-Cabanatuan City) Transport Service Cooperative	San Antonio	SanAntonio-Gapan-Sta. Rosa-Cabanatuan City	Non-Transition	-	-
San Josenian Jeepney Drivers Operators Transport Service Cooperative	San Jose City	San Jose City - Science City of Muñoz- Talavera-Cabanatuan City	Transition	2	2025
New Sta. Rosa Transport Service Cooperative	Santa Rosa	Sta. Rosa - Cabanatuan City	Non-Transition	-	-
Talavera Transport Service Cooperative	Talavera	San Jose City - Science City of Muñoz- Talavera-Cabanatuan City	Non-Transition	-	-
Zaragoza Ramstar Transport Service Cooperative	Zaragoza	Zaragoza-Sta. Rosa-Cabanatuan City	Transition	50	2022

Table 1. Profile of participating cooperatives

4.2 Classification of Routes

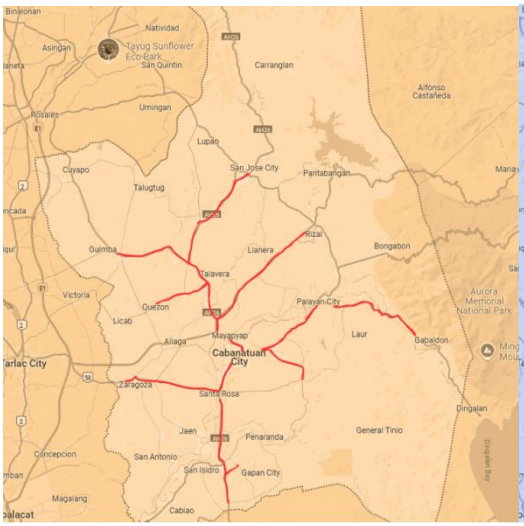

Figure 2. Transitioned routes

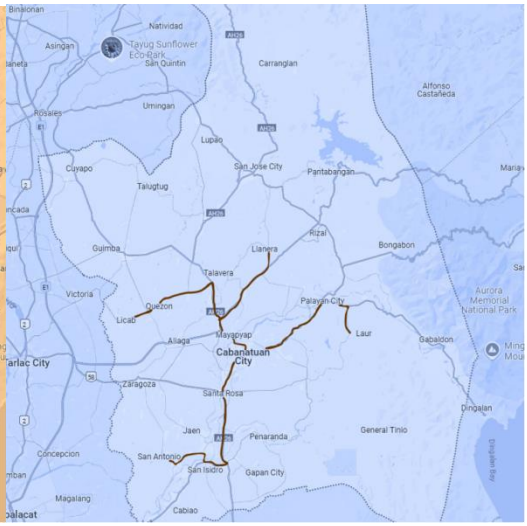

Figure 3. Non-transitioned routes

Figures 2 and 3 illustrate the progress of jeepney modernization in Nueva Ecija. Red routes (Fig. 2) show areas where modernized PUJs operate, while brown routes (Fig. 3) indicate remaining traditional jeepneys in rural/remote areas. This contrast highlights the ongoing, phased implementation of the modernization program across the province.

4.3 Policy and Documentation Challenges

Transport cooperatives undergoing PTMP transition face numerous regulatory hurdles due to overlapping documentation requirements across agencies. While LGU endorsements are generally quick, processes involving the BIR and CDA often experience delays due to form confusion, audit revisions, and coordination issues. Loan approvals depend on prior clearances; hence the timing is very important. The most significant bottleneck is the CPC or Certificate of Public Convenience of the LTFRB, which ideally would have all the preceding documents and is often delayed due to unclear instructions and a long processing time. These challenges call for desperate solutions in terms of government policy reference for streamlined procedures and coordination among agencies.

4.4 Presentation of Thematic Findings

4.4.1 Awareness and understanding of the PTMP

This lack of knowledge constrains most transport cooperatives in Nueva Ecija from profiting from the PTMP, as they often mistakenly view the program as solely vehicle replacement. Various issues that provoked confusion in the minds of applicants were the costs, requisites, and obligations, with information emanating from short, technical seminars or mere gossip. Such misconception as to sanctions, subsidies, and roles of cooperatives bring out the urgent need for clear, localized, and consistent government communication.

Structured Summary

- 11 out of 17 cooperatives (≈65%) said they had "limited or no formal orientation" from LTFRB.
- 9 cooperatives confused modernization as "puro palit-sasakyan lang."
- Most non-transitioned cooperatives believed modernization would "reduce income" or "kill traditional jeepneys immediately."

Actual Responses

- "Wala kaming malinaw na orientation. Ang alam lang namin, papalitan ang jeep."
- "Sa dami ng requirements, hindi namin alam kung saan magsisimula."
- "Naririnig lang namin sa ibang drivers, kaya hindi namin alam kung totoo ba."

4.4.2 Experiences in the transition process

Cooperatives in Nueva Ecija faced delays, a high cost, and inconsistent technical guidance during the PTMP transition. Many of these cooperatives sought to organize themselves and seek assistance from the LTFRB, LGUs, and banks, however, assistance was often too slow or unclear. Requirements were conflicting, and processing time was long. Despite this, strong internal coordination helped some succeed, highlighting the need for clearer, faster, and more consistent government processes.

Structured Summary

- 7 transitioned cooperatives reported that documentation took 6–18 months.
- 8 cooperatives experienced "conflicting instructions" across LTFRB, LTO, BIR, CDA.
- All transitioned cooperatives (10/10) said loan processing with DBP/LBP took longer than expected (3–9 months).

Actual Responses from Operators

- "Tatlong beses kami bumalik sa LTFRB dahil iba-iba ang sinasabi ng staff."
- "Naipit ang unit namin dahil pending pa ang papel sa CDA."
- "Nag-downpayment na kami pero hindi pa makabiyahe dahil wala pa rin CPC."

4.4.3 Challenges encountered

The PTMP transition experienced key challenges with cooperatives, including high vehicle prices, slow regulatory processes, and difficulty with new technologies. There was maximum resistance from older drivers fearing losing their income. These factors underline the need for simpler procedures, financial support, technical training, and strong cooperative leadership.

Structured Summary

- 17/17 cooperatives identified cost as the number one challenge.
- All 10 transitioned cooperatives reported monthly amortization of ₱40k–₱50k to be burdensome.
- 6 cooperatives reported driver resistance, especially older drivers.
- 9 cooperatives reported low passenger volume during the first months.

Actual Responses

- "Hindi namin kayang bayaran ang ₱50,000 monthly kung mababa ang pasahero."
- "Takot ang matatandang driver sa bagong technology."
- "Kahit may unit na, hindi makabiyahe dahil incomplete pa ang permits."
- "Mabigat ang diesel ngayon, tapos may bayarin pa sa banko."

4.4.4 Perceived impact of the PTMP

The PTMP brought mixed results to transport cooperatives. Many are satisfied with stable incomes, better service quality, and improved internal systems. But challenges remain-high debts, decreased earnings for some, passenger volume split with the traditional jeepney, and difficulty adapting to new systems. While some cooperatives became more organized, others faced low member participation and leadership gaps. In all, the program's success hinges upon financial support, acceptance from commuters, and sound cooperative management.

Structured Summary

- 7 transitioned cooperatives said income became more stable after loan period, but 8 cooperatives said income dropped during the first year due to expenses.
- All transitioned cooperatives said modern units improved passenger comfort.
- Only 3 cooperatives reported increased ridership.
- 5 cooperatives said traditional jeepneys on the same route still a steal passengers.

Actual Responses

Positive:

- "Mas komportable ang pasahero, may aircon at CCTV."
- "Mas maayos ang takbo ng kooperatiba ngayon."

Negative:

- "Mataas ang gastos, mababa ang kita—lalo sa umpisa."
- "Kalahati ng pasahero, sumasakay pa rin sa lumang jeep."
- "Dalawang buwan nakatengga ang unit habang hinahabol ang papeles."

4.4.5 Recommendations and suggestions from cooperatives

Better financial support and well-planned routes with their terminals were demanded by cooperatives in order to ease the burden of modernization. They also asked for simpler documentation, including better coordination between agencies such as LTFRB and LTO, and among stakeholders themselves at the very least on a consistent occasion. Sustained government support through follow-up, help desks, and continuous driver training was viewed as the key factors toward the successful and inclusive implementation of the PTMP and especially for small and rural cooperatives.

4.5 Cost-Benefit Analysis

This part is a financial assessment of the conversion of services to modern PUJs under the PTMP through a CBA. Qualitative insights have been discussed in preceding sections; thus, this analysis provides an objective view through two financial measures, NPV, and BCR. The calculations were done on the basis of the data given by cooperatives for a standard seven-year loan term. Hence, it attempts to determine if under present circumstances, PTMP would produce a positive return. Alternative cases such as increase in subsidies or extension of loan terms are likewise considered to see if any policy adjustments could make the program more financially viable. This analysis can serve for future revisions on the implementation strategy of the PTMP.

4.5.1 Assumptions used

The analysis uses a 7-year period and an 8% discount rate, reflecting standard government project terms. Cost estimates—such as a ₱2.2M vehicle price, ₱40,000 monthly amortization, and regular fuel and maintenance expenses—are based on actual cooperative data. Benefits include savings from removed boundary fees, higher passenger volumes, and increased post-loan income. Government support, social protections, and income losses due to permit delays were also factored in. These assumptions provide a realistic basis for evaluating NPV and BCR.

4.5.2 Cost and revenue projections table (per unit)

The cost-benefit analysis estimates a total 7-year operating cost of ₱8.42 million per modern unit, covering amortization, fuel, maintenance, admin costs, and downtime from permit delays. Projected benefits, including eliminated boundary fees, higher income post-loan, increased ridership, social protections, and government aid, total ₱4.04 million. This results in a net shortfall of ₱4.38 million, highlighting the financial challenges faced by cooperatives under current conditions of the modernization program.

4.5.3 Net present value and benefit-cost ratio

To evaluate the financial viability of transitioning to modern PUVs under the PTMP, a NPV and BCR analysis was conducted using projected cost and benefit streams over a 7-year loan period. The analysis considers both direct financial outflows and monetized benefits based on cooperative experiences in Nueva Ecija.

4.5.4 Net Present Value (NPV)

The NPV was calculated over a 7-year period using an 8% discount rate to assess whether the financial benefits of modernization outweigh the costs. Annual costs averaged ₱900,000, while benefits ranged from ₱200,000 in the early years to ₱577,429 in later years, reflecting delayed income gains. The resulting NPV is ₱–2,352,700, indicating that the total discounted benefits fall short of total costs. This negative NPV reinforces the financial challenges cooperatives face under current PTMP terms.

Formula:

$$NPV = \sum_{t=1}^{7} \frac{Benefits_t - Costs_t}{(1+r)^t} \quad (1)$$

Where:

- t = year (1 to 7)
- r = discount rate = 8%

Yearly Estimates:

- Annual Cost: ₱900,000
- Annual Benefit (Years 1–2): ₱200,000 (limited operations/support)
- Annual Benefit (Years 3–7): ₱577,429 (full operations, post-loan gains)

4.5.5 Benefit-Cost Ratio (BCR)

The BCR compares the present value of total benefits to total costs over a 7-year period. With a BCR of 0.55, the analysis shows that every ₱1.00 invested returns only ₱0.55 in monetized benefits. This indicates that, under current conditions, the transition to modern PUJs is financially inefficient without additional support, confirming the short-term financial burden on transport cooperatives.

Formula:

$$BCR = \frac{\sum Present\ Value\ of\ Benefits}{\sum Present\ Value\ of\ Costs} \quad (2)$$

Results:

- Present Value of Total Benefits ≈ ₱2,900,000
- Present Value of Total Costs ≈ ₱5,250,000

  $BCR = \frac{2,900,000}{5,250,000} = 0.55$

4.5.6 Visual matrix of CBA (PTMP – Nueva Ecija)

COST	BENEFITS	CONCERNS

Visual Matrix of Cost-Benefit Analysis (PTMP – Nueva Ecija)				
Financial	**Operational**	**Environmental**	**Social**	**Service Quality**
Capital Cost	**Maintenance**	**Reduced Emissions**	**Stakeholder Resistance**	**Modern Amenities**
Monthly Amortization	**Fuel Expenses**	**Diesel Fuel Dependence**	**Equity Concerns**	**Safety & Monitoring**
Admin & Compliance	**Vehicle Downtime / Permit Processing**		**Public Perception / Image**	**Terminal Access Loss**
Government Subsidy	**Organized Operations**		**Legal Recognition of Cooperatives**	**Increased Fare Rates**
Income Stability				

Table 2. Visual matrix of CBA (PTMP – Nueva Ecija)

The visual matrix shows that PTMP brings clear benefits — such as reduced emissions, better service coordination, and improved public perception — but also significant challenges. Cooperatives face high capital costs, monthly amortization, and administrative burdens, with only modest subsidies and post-loan income offering relief. Operational issues like fuel expenses, maintenance, and permit delays persist. Diesel dependency limits environmental gains. A socially-based concern remains, the operations being formalized assure resistance to, and equity issues between them. Riders get to enjoy new facilities, yet an increase in fare and terminal rerouting compromises accessibility and affordability. The matrix brings out the pressing need for stronger policy intervention to check the trade-offs.

4.6 Process Framework

The PTMP transition process starts with a decision by the General Assembly and the creation of a Transition Committee to manage or handle requirements. A cost-benefit analysis is introduced early on to help in weighing financial decisions. Cooperatives obtain endorsements from the local governments and file them with BIR and CDA for compliance. Route validation by the Local Transport Board endorses operational authority.

Loan acquisition from Land Bank of the Philippines or DBP is often difficult due to strict requirements, making early preparation essential. Once financing is approved, vehicle procurement and registration with the LTO follow, ensuring compliance with PTMP standards. The final approval step is the LTFRB's CPC, which consolidates all prior documents. Deployment of modern units includes fare systems, trained drivers, and continuous education.

Success depends on early planning, a lot of documentation, and parallel processing of tasks. Delay comes most of the time due to poor coordination or internal disorganization. This framework filled with real experiences of cooperatives serves as an effective guide on transitions that can be replicated.

Figure 4. Process framework page 1

5 LOAN APPLICATION

MAG-APPLY NG LOAN O FINANCING

Ano ang Gagawin:

- ✓ Makipag-ugnayan sa bangko tulad ng ***Development Bank of the Philippines*** o ***Land Bank***
- ✓ I-submit ang mga naunang dokumento bilang patunay ng kakayahan sa loan
- ✓ Maghanda para sa interview at evaluation ng bangko

Mga Kailangan:

- Updated na dokumento mula sa CDA at BIR
- Aprubadong Route Plan
- Application forms ng bangko
- Financial records ng kooperatiba

Tinatayang Oras: 1–3 buwan

(Simulan habang inaayos pa ang ruta at mga rehistrasyon)

Paalala:

Maaaring maantala kung may kulang na dokumento

6 ACQUIRE

BUMILI AT IREHISTRO ANG MODERNONG SASAKYAN

Ano ang Gagawin:

- ✓ Pagkatapos maaprubahan ang loan, bumili ng modernong jeep sa ***government-accredited manufacturers***
- ✓ Siguraduhing sumusunod ang sasakyan sa mga pamantayan ng PTMP (may aircon, GPS, CCTV, atbp.)
- ✓ Irehistro ang sasakyan sa ***Land Transportation Office (LTO)***

Mga Kailangan:

- Loan documents
- Kontrata mula sa manufacturer
- Records ng kooperatiba
- Katibayan ng aprubadong ruta

Tinatayang Oras: 2–4 linggo

7 CPC APPLICATION

MAG-APPLY PARA SA CERTIFICATE OF PUBLIC CONVENIENCE (CPC)

Ano ang Gagawin:

- ✓ I-submit ang lahat ng kumpletong dokumento sa ***Land Transportation Franchising and Regulatory Board (LTFRB)***
- ✓ Kailangan ito para legal na makapag-operate bilang pampublikong transportasyon

Mga Kailangan:

- Endorsement mula Barangay at LGU
- Mga dokumento sa buwis at negosyo
- Certificate of Good Standing
- Aprubadong ruta
- Rehistro ng sasakyan
- Katibayan ng pagiging miyembro ng kooperatiba
- Dokumento ng pagmamay-ari ng sasakyan (loan/contract)

Tinatayang Oras: 3–6 buwan

Paalala:

(Ito ang madalas na pinakamatagal; maraming nalilito sa requirements)

8 OPERATION

SIMULAN ANG OPERASYON

Ano ang Gagawin:

- ✓ Kapag may CPC na, puwede nang mag-operate
- ✓ Magtalaga ng mga driver, operator, at tiyaking ayos ang fare system (cashless/card-based)
- ✓ Regular na i-monitor ang operasyon

Tip:

Mag-training ang mga driver at staff tungkol sa disiplina, kaligtasan, at bagong teknolohiya

IKALAWANG PAHINA

Maaaring Pagsabayin

2 + 3

4 + 5

6 + 7

Mga Dapat Iwasan

- Kulang o hindi maayos na mga dokumento.
- Walang malinaw na desisyon mula sa Board of Cooperatives.
- Hindi nagkakaisa o nagtutulungan ang mga miyembro ng kooperatiba.

Paalala

- Magsimula nang maaga.
- Puwede nang kausapin ang bangko kahit hindi pa tapos ang ruta.
- Puwedeng iproseso agad ang CPC pagkatapos ma-rehistro ang sasakyan

Figure 5. Process framework page 2

5. SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Summary of Findings

This study assessed the implementation of the PTMP in Nueva Ecija, focusing on how cooperatives have transitioned from traditional PUVs to modern PUVs. Seventeen cooperatives were interviewed to find out about the transition experience, challenges, and benefits.

It was found that the transitioning comprises several steps, incorporation and legal registration of the cooperative, permits, validation of routes, availing of loans, purchasing of vehicles, and training of operators. Capital cost continues to be the major problem, with a modern unit being priced anywhere from ₱1.6 to ₱2.6 million and amortizations reaching ₱50,000. The late release of government subsidies and delays in regulatory approvals worsen the financial strain when the vehicle remains unused.

Cooperatives claimed that the negative economic impact was outweighed by improved service and operational legitimacy. From an operational perspective, the new units operate on comfort air-conditioning, GPS, and CCTV and are accessibility-enabled. Cooperatives' members benefit from better income structures post-amortization and access to government benefits like SSS and PhilHealth.

However, ongoing issues such as illegal operations, low passengers from some routes, and poor terminal infrastructure remain unresolved issues. Some participants also pointed out institutional bottlenecks, such as delays in documentation, disbursement of funds, and inter-agency coordination. Moreover, it was suggested that non-transitioned cooperatives should be assisted through a guided, step-by-step process, which will ease them into the program.

5.2 Conclusion

The PTMP promotes safer and more sustainable transport, but its implementation in rural areas like Nueva Ecija faces significant barriers. Transitioned cooperatives encountered high costs, complex requirements, and delayed support. While the program improved passenger comfort and driver welfare, challenges such as poor inter-agency coordination, financial risk, and competition from illegal operators persist.

To succeed, the PTMP must streamline its processes, enhance financial support, and provide clear, structured guidance. A localized process framework is vital to help non transitioned cooperatives navigate the process effectively.

5.3 Recommendations

To build on this study and address existing gaps, the following recommendations are proposed for future research:

(a) Include traditional drivers and independent operators to understand their reasons for not participating in the program and how they operate within the current transport system.

(b) Use both qualitative (interviews) and quantitative (surveys, financial data, passenger counts) methods to strengthen comparative analysis.

(c) Investigate the role of local government units (LGUs) in supporting or hindering the program—particularly in route planning, terminal provision, and enforcement against illegal vehicles.

(d) Assess post-loan outcomes for cooperatives, including changes in profitability, maintenance practices, and ownership structures.
(e) Conduct interviews with key government agencies (e.g., LTFRB, DOTr) to gain insights into policy intent, regulatory processes, and perceived implementation challenges.

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7. APPENDICES

7.1 Questionnaire

For cooperatives that have not yet transitioned

1. Identifying the PTMP's Current Progress in Nueva Ecija
   - *Ano ang pangunahing dahilan kung bakit hindi pa kayo lumilipat sa modernization?*
   - *Kumpara sa inyong kasalukuyang sistema, paano ninyo nakikita ang modernization sa usaping kita, pagiging sustainable, at bilang ng pasahero?*

2. Socio-Economic Factors Hindering Transition
   - *Ano ang mga salik sa pananalapi na pumipigil sa inyong kooperatiba na lumipat sa modernization?*
   - *Pabor ba ang inyong mga driver at operator sa modernization? Bakit oo o bakit hindi?*
   - *Nasubukan na ba ninyong tingnan ang mga pautang mula sa gobyerno o pribadong sektor para sa modernization? Kung oo, anong mga hadlang ang inyong naranasan?*
   - *Ano ang mga social o cultural factors (hal. pag-aalinlangan ng mga driver, pagtutol ng komunidad) na nakakaapekto sa inyong desisyon na ipagpaliban ang modernization?*
   - *Ano ang konkretong suporta mula sa gobyerno o pribadong sektor na makakatulong sa inyong paglipat sa modernization?*

3. Challenges Faced by Cooperative-Operated Routes During Transition
   - *Ano ang pinakamalaking pangamba ng inyong mga miyembro tungkol sa proseso ng transition?*
   - *Ano ang mga hamong inaasahan ninyo sa pamamahala ng fleet ng modernized PUVs?*
   - *Ano ang mga pangunahing alalahanin ninyo sa pagsali sa cooperative model na kinakailangan sa modernization?*
   - *Paano ninyo balak pangasiwaan ang bagong sistema ng pasahe, regulasyon sa ruta, at fleet management?*
   - *Nakipag-ugnayan na ba kayo sa ibang kooperatibang naka-modernize na? Kung oo, anong mahahalagang impormasyon ang inyong nakuha mula sa kanila?*

For cooperatives that have already adopted modernization

1. Identifying the PTMP's Current Progress in Nueva Ecija
   - *Kailan natapos ng inyong kooperatiba ang paglipat sa modernized PUVs?*
   - *Ilang unit ng modernized PUVs ang nakuha ninyo sa ilalim ng programa?*
   - *Ano ang mga pangunahing hakbang sa inyong transition, at gaano ito katagal?*
   - *Ano ang naging epekto ng modernization sa inyong ruta, biyahe, at bilang ng pasahero?*
   - *Ano ang pinakamahirap na regulatory requirements, at paano ninyo ito nalampasan?*

2. Socio-Economic Factors Hindering Transition
   - *Paano nakaapekto ang modernization sa katatagan ng inyong kita sa unang taon?*
   - *Ano ang pinakamalaking hamon sa pananalapi bago, habang, at pagkatapos ng transition?*
   - *Paano ninyo pinangasiwaan ang pangamba ng mga driver tungkol sa kita at seguridad sa trabaho?*
   - *May nawalan ba ng trabaho o nagkaroon ba ng pagbabago sa istruktura ng empleyo sa inyong kooperatiba? Kung oo, paano ninyo ito nalutas?*
   - *Paano nagbago ang presyo ng pamasahe at bilang ng pasahero matapos ang modernization?*

3. Challenges Faced by Cooperative-Operated Routes During Transition
   - *Ano ang pinakamalaking hamon na inyong hinarap sa proseso ng transition?*
   - *Anong mga problema ang inyong naranasan sa pagkuha ng bagong fleet at pagsunod sa regulasyon, at paano ninyo ito nalutas?*
   - *Ano ang mga pangunahing operational challenges kaugnay ng fleet management, pagbabago ng ruta, at scheduling?*
   - *Paano nag-adjust ang mga driver sa bagong sistema ng operasyon at pamamalakad? Anong mga training o suporta ang nakatulong sa kanila?*
   - *Mayroon bang hindi inaasahang problema matapos ang transition? Paano ninyo ito nalutas?*

4. Cost-Benefit Analysis of the Transition
   - *Magkano ang kabuuang gastos sa inyong paglipat sa modernized PUVs?*
   - *Paano nakaapekto ang modernization sa mga gastusin sa operasyon tulad ng gasolina, maintenance, at suweldo ng driver?*
   - *Anong mga benepisyo sa pananalapi ang inyong naranasan sa unang taon ng modernization?*
   - *May pagtaas ba sa bilang ng pasahero o kita? Kung oo, gaano kalaki ang pagtaas?*
   - *Ano ang inyong inaasahang pansamantala at pangmatagalang gastos sa pagpapatakbo ng modernized PUVs?*

5. Lessons Learned & Strategies from Transitioned Operators
   - *Ano ang pinakamahalagang aral na natutunan ng inyong kooperatiba sa proseso ng transition?*
   - *Anong mga estratehiya ang epektibong nakatulong sa pagbabawas ng gastusin at pagpapadali ng transition?*
   - *Ano ang pinakamahusay na paraan sa pagpapaliwanag at pagharap sa mga alalahanin ng mga driver tungkol sa modernization?*
   - *Paano nakuha ng inyong kooperatiba ang puhunan o mas magandang terms sa financing?*
   - *Ano ang inyong top 3 tips para sa mga kooperatibang hindi pa naka-modernize?*

· *Kung uulitin ninyo ang proseso, ano ang gagawin ninyo nang iba?*