Is Modernization of Public Transport in The Philippines A Boon or A Bane for The Filipino People?

Dr. Jenny Beb F. Espineli
Cavite State University, Imus Campus, Philippines
jennybeb_espineli@cvsu.edu.ph

Dr. Cynthia C. Facundo
Cavite State University, Imus Campus, Philippines
ccfacundo@cvsu.edu.ph

Assistant Professor Delilah B. Antolin
Cavite State University, Imus Campus, Philippines
dbantolinn@cvsu.edu.ph

ABSTRACT

The modernization of public transportation is a critical initiative aimed at addressing longstanding challenges in safety, efficiency, and sustainability within different areas. In the context of the Philippines, stakeholders including operators, drivers, and passengers exhibit varying levels of awareness, acceptance, and concerns regarding these efforts. While significant strides have been made in upgrading infrastructure, implementing safer vehicles, and integrating technology, there remain substantial challenges in delivering satisfactory service across dimensions such as tangibility, reliability, responsibility, security, and empathy. Addressing

these aspects is crucial as they directly impact stakeholder satisfaction and overall assessment of modernization initiatives. This study employed a descriptive-correlational design and utilized a questionnaire analyzed through the SERVQUAL method. The findings emphasize the critical importance of prioritizing accessibility and inclusivity for all commuters, advancing cleaner and more energy-efficient transportation systems, and implementing strong monitoring and evaluation mechanisms. The study highlights the necessity of continuous improvement by incorporating stakeholder feedback, investing in training programs for transport personnel, and tailoring global best practices to suit local contexts. Ultimately, the modernization of public transportation offers substantial opportunities to improve mobility, safety, and sustainability in the Philippines through collaborative and innovative strategies.

INTRODUCTION

Globalization is sweeping through our society, ushering in a digital transformation across all sectors, much like the modernization occurring in transportation. This represents a glimpse into the future, where changes unfold one after another. Embracing these changes is imperative as we find ourselves on the cusp of a total revolution in innovation.

Public transportation has the potential to significantly contribute to a more environmentally sustainable transport system. However, it currently lacks the necessary infrastructure and conditions to achieve its full potential. The public transport system in the Philippines remains highly fragmented, heavily dependent on outdated and small-scale road-based vehicles such as jeepneys. Despite a rise in car

ownership, jeepneys continue to serve a substantial portion of commuters, accounting for roughly 40% of all motorized person trips, or approximately 40 million person-trips per day. Unfortunately, this makes them major contributors to greenhouse gas emissions in the transport sector. Consequently, the Department of Transportation's initiatives to modernize the system are both timely and essential (Monzon et al., 2023).

According to Gatarin (2024)it is evident that public transportation could play a vital role in fostering a more environmentally friendly transport system. However, it currently lacks the necessary conditions to realize its full potential. The existing public transport system in the Philippines is highly fragmented, relying on outdated, often small-scale road-based vehicles, particularly jeepneys. Despite increasing car ownership, jeepneys continue to maintain high ridership levels, comprising approximately 40% of all motorized person trips in the Philippines, amounting to around 40 million person-trips per day. Unfortunately, this also makes them significant contributors to greenhouse gas emissions in the transport sector. Therefore, the Department of Transportation's aspirations to modernize the transportation system are crucial.

The Public Utility Vehicle Modernization Program (PUVMP) was initiated by the Department of Transportation in 2017, aiming to enhance the efficiency and environmental friendliness of the country's public transportation system by 2020. The program entails phasing out old jeepneys, buses, and other public utility vehicles (PUVs) that are at least 15 years old and replacing them with safer, more comfortable, and environmentally sustainable alternatives over a three-year period. Currently, there are 220,000 jeepney units operating nationwide, and replacement vehicles must feature either a Euro 4-compliant engine or an electric engine to reduce pollution. Additionally, proposed requirements include CCTV

cameras, an automated fare collection system, speed limiters, and GPS monitors.

The goal of the jeepney modernization program is to replace traditional jeepneys with vehicles that are safer, more efficient, and environmentally friendly. Transportation Secretary Jaime Bautista is confident that this modernization initiative will strengthen the CASA (convenient, accessible, safe and secure, and affordable) program within the transportation sector, leading to the creation of more job opportunities, including positions for mechanics, dispatchers, and administrative staff (Goorha, 2010, Lu, 2024).

A significant gap in the modernization of public transport in the Philippines lies in the uneven distribution of resources and infrastructure development across different regions. While some urban centers benefit from extensive modernization efforts, rural areas often lack the necessary investments in upgraded vehicles, efficient routes, and supportive infrastructure such as terminals and maintenance facilities. This disparity not only exacerbates transportation challenges for residents in rural communities but also widens the gap in accessibility and economic opportunities between urban and rural areas. Addressing this gap requires a more inclusive approach to modernization, ensuring that all regions receive equitable support and resources to improve public transportation systems.

Despite our eagerness to embrace the sweeping changes brought about by globalization, it's essential to consider public sentiment regarding the modernization of public transport. This study argues if modernization of public transport in the Philippines a bone or a bane through amplifying the perspectives of stakeholders in Cavite, including jeepney operators, drivers, and commuters across the Philippines.

This argument was demonstrated by initially examining the awareness surrounding the execution of public transport modernization in the Philippines. Evaluation of the

modernization encompassed aspects in the SERVQUAL model like tangibility, reliability, responsibility, security, and empathy. Ultimately, the impact of the modernization on operators, drivers, and commuters was assessed. This study offers a comprehensive understanding of Filipino perspectives on the modernization of public transport in the Philippines, offering valuable insights into the interplay of economic, social, environmental, and policy elements influencing transportation systems and their societal repercussions.

REVIEW OF RELATED LITERATURE

Modernization

The modernization of public transport in the Philippines has been a subject of growing interest and debate in recent years. With the aim of improving efficiency, safety, and environmental sustainability, various stakeholders have proposed and implemented initiatives to upgrade the country's transportation infrastructure. This literature review aims to synthesize existing research on the modernization efforts in the Philippines, examining key challenges, strategies, and outcomes.

According to Nuralievna & Park (2023), the automobile industry generates approximately 5% of global industrial waste, stemming from both vehicles and production plants. It is also one of the largest consumers of raw materials. Vehicle sales projections indicate significant growth in the coming decades, with the global vehicle fleet expected to increase by up to 1.85 billion vehicles by 2030, resulting in a substantial demand for raw materials.

Historically, public transportation in the Philippines has been characterized by a fragmented and predominantly informal system, with jeepneys, tricycles, and buses serving as primary modes of transit in urban and rural areas. However, rapid urbanization, population growth, and increasing traffic

congestion have highlighted the need for modernization to address emerging challenges and meet the evolving demands of commuters (Mendoza, n.d.)

As per the findings of the Asia Pacific Foundation (2023), Jeepneys serve as a vital means of transportation for Filipino commuters, particularly students and low-income workers, offering an affordable option that sustains the livelihoods of numerous independent operators. Nevertheless, the persistent use of jeepneys has raised escalating concerns regarding environmental impact and safety due to their high emissions and outdated design. Within the context of the Public Utility Vehicle Modernization Program (PUVMP), transport associations express apprehension that the consolidation and elevated expenses associated with modernized jeepneys could potentially ensnare individual operators in a monopolistic cycle of debt.

In contrast to the traditional jeepney, priced between $4,900-15,000 (200,000-600,000 Philippine pesos), modernized electric or eco-friendly variants can demand significantly higher costs, ranging from $60,000-65,000 (2.4-2.6 million Philippine pesos). Advocates for Inclusive Transport (PARA-AIT) have underscored that in order to recoup the expenses incurred through modernization, operators might be compelled to raise jeepney fares to 35 Philippine pesos, three times the current minimum fare, thereby burdening commuters. While PARA-AIT recognizes the environmental advantages of modernization, they criticize the government for its lack of transparency and absence of a "fair and just transition" strategy concerning the PUVMP (Gumasing et al., 2024)

In efforts to dissuade transport associations from pursuing the earlier strike, President Ferdinand Marcos Jr. emphasized the inevitability of modernization, with approximately 61 percent of Public Utility Vehicles (PUVs) already consolidated. Despite the criticisms leveled against it, Marcos Jr. asserted that the PUVMP will proceed as planned, assuring

thattraditional jeepneys will not be entirely phased out. Instead, he underscored the necessity of conducting comprehensive inspections of existing jeepneys to assess their roadworthiness (Lee et al., 2023)

Prior to the strike, Marcos Jr. acknowledged the government's lack of readiness in executing the program while assuring transport groups of a comprehensive reassessment of its implementation. Subsequently, he pledged that the PUVMP will be executed in a "different manner," emphasizing that modernizing the country's transportation systems will be pivotal in rejuvenating the sluggish Philippine economy (Monzon et al., 2023).

SERVQUAL

Thestudy of (Zulueta et al., 2024) found significant relationships between service quality, attitude, perceived behavioral control, and behavioral intentions. Assurance was the most influential factor, while satisfaction had the highest influence on lower-order constructs. The findings emphasized the need to build trust with passengers, prioritize

safety and security, and blend modern jeepney designs with traditional ones to improve commuter experiences. Despite resistance to the modernization of traditional jeepneys, passengers were found to be more influenced by their travel experiences than societal approval. The study offers valuable insights for future research, government organizations, transportation management, and modern jeepney manufacturers, emphasizing the importance of service quality in promoting the use of modern jeepneys.

The study conducted by Gumasing et al. (2024) investigates the factors influencing Filipinos' adoption of e-jeepneys using the extended Pro-Environmental Planned Behavior (PEPB) model. A survey of 502 commuters found that perceived environmental concern (PEC) significantly influences attitude (AT), which in turn affects behavioral

intention (BI) to adopt e-jeepneys. AT was identified as the primary driver of BI. Furthermore, perceived authority support (PAS) strongly predicted subjective norms (SNs), highlighting the impact of institutional support on public perceptions. The study concludes that individuals who are more environmentally conscious are more likely to have a positive view of e-jeepneys and intend to use them.

Gatarin (2024) emphasizes that transitioning to cleaner technologies and enhancing public transport is crucial for tackling the climate crisis and advancing mobility justice, particularly in the Global South. However, this transition must be inclusive, ensuring that informal transport workers, who are often negatively affected by modernization programs, are not left behind. Jeepneys, a cultural symbol since World War II, are targeted by government reforms that are frequently unaffordable for low-income drivers. The research advocates for a just transition, focusing on gradual changes, inclusive dialogue, and industry support to ensure the program's sustainability and equity, especially in the post-COVID-19 context.

Public transportation policies

The Public Utility Vehicle Modernization (PUVM) Program in the Philippines seeks to revolutionize the public transportation landscape by introducing safer and more environmentally friendly vehicles, enhancing regulations, and consolidating the industry. Its overarching goal is to enhance urban quality of life, mitigate economic losses from travel time, reduce health-related expenses and premature deaths, lower greenhouse gas emissions, and uplift the economic status of operators and the industry by elevating service quality standards (Perez et al., 2022).

Similarly, there are various challenges in government priorities, institutional frameworks, and the implementation of transportation policies. Low-income Asian nations often

prioritize road infrastructure over public transportation. In the Philippines, investments in roads are seven times higher than in public transport, and informal, indigenous transport options, which are more accessible to the poor, are there ignored or subjected to stricter regulations compared to private vehicle ownership. Regarding public bus services, there is a weak regulatory framework, with numerous small private operators causing market inefficiencies and aggressive driving due to the "boundary system," where daily earnings depend on the number of passengers. In countries like Sri Lanka and the Philippines, bus operators are often influential figures, such as military personnel, celebrities, or politicians, which weakens political commitment and creates resistance to rationalizing public bus transport (Domingo et.al, 2015).

Despite recent efforts to decentralize transport management from national to local agencies in Asia, local governments still face challenges such as a lack of skilled personnel, insufficient financial resources (Wijaya and Imran 2019), and limited mechanisms for collecting and analyzing data, particularly in assessing public transport service quality. In the Philippines, regulatory reforms in public transport were initiated with the Public Utility Vehicle Modernization Program (PUVMP), guided by Department Order No. 2017-01, titled "Omnibus Guidelines on the Planning and Identification of Public Road Transportation Services and Franchise Issuance" (Department of Transportation, 2017). This program delegated route planning responsibilities to local government units (LGUs), requiring them to conduct route rationalization studies and submit their Local Public Transport Route Plan (LPTRP). Local councils were also instructed to review and amend, revise, or repeal transport policies that conflict with the Guidelines and other national policies (Department of Interior and Local Government & Department of Transportation, 2017).

The Public Utility Vehicle Modernization Program (PUVMP) is the government's proactive measure to tackle escalating transportation issues and anticipate future transportation needs. Launched through Department Order No. 2017-011 on June 19, 2017, by the Department of Transportation (DOTr), also known as the Omnibus Franchising Guidelines (OFG), the PUVMP is set to overhaul the public transport system, making commuting and operations more dignified, humane, and aligned with global standards.

Under Section 8, Item 2 of DO 2018-024, the Land Transportation Franchising and Regulatory Board (LTFRB), tasked with implementing the Program under the OFG, is mandated to transparently evaluate and approve Local Public Transport Route Plans (LPTRPs). It's also responsible for maintaining a comprehensive database and map of routes for future planning, capacity building, and industry consolidation of non-cooperatives.

Other countries experience

In a swiftly expanding economy like the Philippines, where hundreds of thousands of cars are sold annually, surpassing many ASEAN nations, there's been a lack of substantial investment in sustainable urban transportation infrastructure. Between 2007 and 2012, car ownership surged by 16%, and motorcycle ownership skyrocketed by 69%. The 2014 ASEAN Automotive Federation sales report identified the Philippines as the region's fastest-growing automobile and motorcycle market, outpacing Vietnam, Singapore, Malaysia, and Indonesia (Wilinski & Pathak, 2022)

According to(Sarifah et al., 2020), heavy traffic congestion is most common during morning peak hours on weekdays. However, road accidents occur randomly at various locations and times. The mapping and tests conducted reveal no significant correlation between traffic congestion and road

accidents, although certain locations are more prone to both issues. Traffic congestion and road accidents are major transportation challenges worldwide. In developing countries like Malaysia, these problems are particularly serious, affecting various sectors, including the economy and society.

METHODOLOGY

This research employed a descriptive-correlational design to examine stakeholders' awareness and evaluation of public transportation implementation in the Philippines.

Table 1. Verbal interpretation for the awareness and assessment in the implementation of modernization of public transportation in the Philippines

Rating Scale	Verbal Interpretation		Range
	Awareness of implementation	Assessment of implementation	
5	Very High	Very-well implemented	4.20 – 5.00
4	High	Well-implemented	3.40 – 4.19
3	Average	Implemented	2.60 – 3.39
2	Low	Fairly implemented	1.80 – 2.59
1	Very Low	Poorly implemented	1.00 – 1.79

5: Strongly Agree, 4: Agree, 3: Moderately agree, 2: Disagree
1: Strongly Disagree

Primary data were gathered through questionnaires from various stakeholders, including jeepney operators, drivers, and passengers like students, parents, working individuals, and other commuters utilizing jeepneys for transportation in Cavite province.

Survey questionnaire is adopted from SERVQUAL Method from Polish Journal of Management Studies of Ulewicz R. This SERVQUAL method employ a five-point Likert scale ranging from "1" meaning "strongly disagree" to "5" meaning "strongly agree". The obtained weighted mean of their responses was verbally interpreted with the use of the following range and interpretation. Both descriptive and inferential statistics were employed to analyze stakeholders' awareness and evaluation of the modernization of public transportation. Variations in awareness levels among stakeholders, grouped by demographic profiles and perceptions of the implementation, were assessed using the Kruskal-Wallis H-test.

RESULTS AND DISCUSSION

Descriptive Statistics

Table 2 presents the descriptive statistics of the stakeholders, outlining the demographic profile of operators, drivers, and passengers in the study, including their age, sex, and civil status. The operators have a mean age of 35, with ages ranging from 28 to 60. The drivers have a mean age of 40, with their ages varying between 25 and 60. Passengers are generally younger, with a mean age of 25 and an age range of 18 to 60.

In terms of gender, there is a notable difference in the distribution, with 46 females and 17 males among the operators. Similarly, among the drivers, 45 are female, and 18 are male. The passengers also exhibit a similar gender distribution, with 46 females and 17 males.

Regarding civil status, the majority of operators (60 out of 63) are married, with 3 being single. Among drivers, 40 are married, and 1 is separated. Passengers are mostly single (30), with 1 being separated.

The demographic data shows that the sample consists mostly of females, especially among the drivers and passengers. The operators and drivers are typically in their late 30s to early 40s, while the passengers are younger, with a mean age of 25. Additionally, most operators and drivers are married, while a majority of passengers are single. This profile provides valuable context for understanding the characteristics of the groups involved in the study.

Table 2. Descriptive statistics of the stakeholders (N=63)

Variables	Mean /Mode	Minimum	Maximum
Age			
Operators	35	28	60
Drivers	40	25	60
Passengers	25	18	60
Sex			
Operators	Female	17 (Male)	46 (Female)
Drivers	Female	18 (Male)	45 (Female)
Passengers	Female	17 (Male)	46 (Female)
Civil Status			
Operators	Married	3 (Single)	60 (Married)
Drivers	Married	1 (Separated)	40 (Married)
Passengers	Single	1 (Separated)	30 (Single)

Test of difference (Kruskall-Wallis)

The awareness of stakeholders to the modernization of public transportation in the Philippines is varied and dynamic. While there is broad recognition of the need for improvement, challenges such as financial constraints, resistance to change, and policy coordination remain significant hurdles. Based on the collected data from 189 stakeholders in Cavite province, their awareness to the modernization in public transportation is Average (Table 3). This was observed among the operators,

drivers and passengers of jeepney as mode of transportation in Cavite.

All three stakeholder groups (operators, drivers, and passengers) demonstrate an average level of awareness. The Kruskal-Wallis statistical test shows no significant differences in awareness among these groups, with a p-value of 0.20, indicating that the awareness levels of operators, drivers, and passengers are not significantly different. Although drivers and passengers exhibit slightly lower awareness scores, they still fall within the "average" category. This suggests a need for interventions or programs to enhance awareness across all groups, even though the results show no statistically significant differences between them.

Concerns regarding the financial feasibility of modernization were commonly voiced by operators and drivers due to the significant expenses associated with acquiring new vehicles and apprehensions about how this could affect their livelihoods. While some individuals expressed support for safer and more efficient vehicles, others resisted these changes due to economic uncertainties and fears of displacement among traditional operators.

Meanwhile, Commuters are keenly aware of the deficiencies in the current public transportation system, such as overcrowding, unreliable schedules, and safety issues. There is growing support among commuters for modernization efforts that promise more comfortable, efficient, and reliable transport options. However, there is also concern about potential fare increases and accessibility issues, particularly for marginalized communities.

Research indicates that jeepney operators and drivers show diverse levels of awareness and acceptance towards modernization initiatives. Numerous operators have voiced apprehensions regarding the financial viability of switching to newer, compliant vehicles as part of the PUV Modernization Program. Studies analyze the approaches utilized by

government and industry stakeholders to enhance awareness and rectify misunderstandings among operators regarding the advantages and prerequisites of modernization (Lucero & Matias, 2020).

Table 3. Test of difference using Kruskall-Wallis H-test

| Stakeholder | Level of Awareness | | H | p | Remarks |
	Mean	Verbal Interpretation			
Operators	3.16	Average			
Drivers	3.08	Average	3.24	0.20	Accept H1
Passengers	2.88	Average			

SERVQUAL model

Assessing the modernization of public transportation using the SERVQUAL model involves evaluating five key dimensions: tangibility, reliability, responsibility, security, and empathy.

The tangibility of public transportation includes assessing the condition of stations, terminals, and the state of jeepneys as a mode of transport in terms of technological integration, accessibility features, and cleanliness. According to the study findings, stakeholders' assessments significantly vary, as indicated by an H-value of 10.35 p value of 0.005 at a 1% level of significance. This disparity suggests that operators, drivers, and passengers hold differing perspectives on the implementation. Nevertheless, all groups generally perceive the implementation as effective, with operators assigning the highest mean score (Table 4).

Likewise, the dimension of reliability, which assesses adherence to published schedules and the availability of transportation services meeting commuter needs during peak hours, showed varied evaluations among stakeholders, as indicated by an H-value of 10.56 and a significant p-value of

0.005 at the 1% level of significance. Stakeholder perceptions differed: operators and drivers generally considered the implementation as moderately effective, whereas passengers perceived it as well-implemented.

Table 4. Assessment of stakeholders in the implementation of modernization in the public transportation in the Philippines using the SERVQUAL model

Stakeholder	Assessment		H	Remarks
	Mean	Verbal Interpretation		
Tangibility			10.35***	Accept H1
Operators	3.87	Well-implemented		
Drivers	3.47	Well-implemented		
Passengers	3.77	Well-implemented		
Reliability			10.56***	Accept H1
Operators	3.26	Implemented Fairly		
Drivers	2.88	Implemented Fairly		
Passengers	3.40	Well-implemented		
Responsibility			4.31	Accept H1
Operators	4.05	Well-implemented		
Drivers	3.78	Well-implemented		
Passengers	4.08	Well-implemented		
Security			9.69***	Accept H1
Operators	4.13	Well-implemented		
Drivers	3.59	Well-implemented		
Passengers	4.02	Well-implemented		
Empathy			5.41*	Accept H1
Operators	4.08	Well-implemented		
Drivers	3.67	Well-implemented		
Passengers	3.85	Well-implemented		

*: p < .1, ***: p < .01

Regarding responsibility and empathy, which involve evaluating customer service effectiveness, complaint handling, customer understanding, and providing caring, individualized attention, stakeholders universally assessed the

implementation of modernization as well-implemented (Table 4). In contrast, security, like to tangibility and reliability, which involves evaluating measures ensuring passenger safety during travel and assessing the competence of drivers and staff in emergencies, yielded notably divergent results. Drivers expressed the highest satisfaction with the implementation compared to other stakeholders.

Assessments from commuters offer insights into the perceived advantages and challenges of modernized public transportation. Research often evaluates commuter satisfaction regarding enhanced service quality, reliability, and accessibility. Generally, commuters endorse initiatives that promise safer, more comfortable, and efficient transport options. However, they voice concerns about fare affordability, accessibility for vulnerable groups, and the broader impact on daily mobility patterns (Manalili & Montenegro, 2019).

Stakeholder evaluations also encompass the environmental and sustainability aspects of public transportation modernization. There is an increasing acknowledgment of the necessity for cleaner and more energy-efficient transport systems to mitigate air pollution and reduce greenhouse gas emissions. Literature delves into stakeholders' perspectives on adopting electric vehicles, promoting cycling and pedestrian-friendly infrastructure, and integrating green technologies into urban transport planning (Tan et al., 2020).

Table 5. Summarized SERVQUAL model assessment of the implementation of modernization in the public transportation in the Philippines

SERVQUAL Model Assessment	Mean	Rank
Tangibility	3.70	4
Reliability	3.18	5
Responsibility	3.97	1
Security	3.91	2
Empathy	3.87	3

It is noteworthy to determine which of the five dimensions of the SERVQUAL model received the highest assessment from operators, drivers, and passengers. According to Table 5, responsibility received the highest mean score of 3.97. This dimension relates to customer service and complaint handling, indicating that stakeholders perceive the modernization efforts as well-implemented in this regard. Conversely, reliability aspects are perceived as moderately implemented. These findings can serve as a basis for revisiting guidelines and policies.

Addressing the critical issue of whether modernization is boon or bane provides a reflective answer based on significantly differing overall assessments from stakeholders. Operators gave the highest score of 3.78, indicating their heightened awareness and understanding of the modernization efforts. Conversely, drivers, who are more directly impacted by these changes, provided the lowest score in the assessment. However, this disparity does not imply poor execution of the modernization efforts, as drivers still rated the implementation as well-executed.

Table 6. Assessment of the stakeholders in the implementation of modernization of public transportation in the Philippines

| Stakeholder | Over-All Assessment | | H | Remarks |
	Mean	Verbal Interpretation		
Operators	3.78	Well-implemented	9.01**	Accept H_1
Drivers	3.42	Well-implemented		
Passengers	3.76	Well-implemented		

**: p < .05

The varying levels of acceptance among stakeholders are supported by literature demonstrating differing levels of awareness and acceptance among jeepney operators and

drivers regarding modernization initiatives. Many operators have expressed concerns about the financial feasibility of transitioning to newer, compliant vehicles under the PUV Modernization Program. Research investigates the strategies employed by government and industry groups to enhance awareness and address misconceptions among operators regarding the benefits and requirements of modernization (Mateo-Babiano et al., 2020)

CONCLUSION

The modernization of public transportation in the Philippines is a pivotal initiative aimed at addressing longstanding issues of safety, efficiency, and sustainability in urban mobility. Stakeholders, including operators, drivers, and passengers, demonstrate varying levels of awareness, acceptance, and concerns regarding these initiatives. While progress has been made in upgrading infrastructure, introducing safer vehicles, and integrating technology, significant challenges persist in delivering satisfactory service, particularly in dimensions such as tangibility, reliability, responsibility, security, and empathy. Addressing these aspects is crucial as they directly influence stakeholder satisfaction and overall assessment of the modernization efforts.

Given stakeholders' divergent views on aspects like tangibility, reliability, and security, several recommendations can be made. It is imperative to prioritize accessibility for all commuters, including persons with disabilities and marginalized communities, ensuring that modernized public transportation systems offer equitable access to safe, reliable, and affordable transport options. Efforts to promote cleaner and more energy-efficient transport systems should be accelerated, advocating for the adoption of electric vehicles, promoting cycling and pedestrian-friendly infrastructure, and

integrating green technologies into urban transport planning to mitigate air pollution and reduce greenhouse gas emissions.

Establishing robust monitoring and evaluation mechanisms is essential to assess the impact of modernization initiatives on service quality, safety, environmental sustainability, and commuter satisfaction. Utilizing feedback from stakeholders can continuously improve and adjust policies and interventions to better meet their needs. Investing in training programs for drivers and transport staff is recommended to enhance their skills in customer service, safety protocols, and emergency response. Empowering transport operators with knowledge and resources to effectively manage and maintain modernized fleets will contribute to sustained improvements in service delivery.

Drawing lessons from successful case studies and best practices from other countries that have implemented successful public transportation modernization programs can provide valuable insights. Adapting these lessons to the Philippine context while addressing local challenges and opportunities will support the development of a robust and efficient transportation system.

While the journey to modernize public transportation in the Philippines presents challenges, it also offers significant opportunities to enhance mobility, safety, and sustainability for residents. Through collaborative efforts, innovative approaches, and inclusive planning, policymakers and stakeholders can collectively create a transportation system that meets the evolving needs of present and future generations.

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