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Perception of the Jeepney Drivers on the Jeepney Modernization in Indang, Cavite

Jayson C. Savilla[1*], Herbee A. Mojica[2], John Michael R. Macaya[3], Pamela A. Reyes[4], Jane Kemberly G. Zerda[5]

[1,2,3,4,5]Cavite State University- Main Campus, Philippines.*

Email: [2]herbee.mojica@cvsu.edu.ph, [3]johnmichael.macaya@cvsu.edu.ph, [4]pamela.reyes@cvsu.edu.ph, [5]janekemberly.zerda@cvsu.edu.ph
Corresponding Email: [1]jaysonsavilla29@gmail.com*

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Abstract: ***This study focused into jeepney drivers' perceptions in Indang, Cavite regarding the impact of jeepney modernization on terms of financial needs, individuality, and work opportunities. It includes demographic profiling of the participants in terms of age, sex, work experiences, and jeepney driver's ownership. The survey questionnaire is divided into three categories which is financial needs, individuality, and work opportunities. It used a 4-point Likert Scale to get the perception of the jeepney drivers regarding the jeepney modernization in each category. After the survey has done the researchers measured first the median of ungrouped data of each question and category to see the overall perception. It showed significant disagreement among jeepney drivers regarding financial needs and work opportunities, but agreement on individuality. The researchers used the Friedmann Test and Wilcoxon Signed Rank Test to see if their significant differences exist as a group or as a pair category. As per result of Friedmann Test it shows the three categories stated doesn't affect each other as a group of three. When it comes to Wilcoxon results rejected the null hypothesis, indicating a significant difference in perceptions of jeepney modernization categories. Overall, drivers disagreed on the entire program, opposing its implementation. To address jeepney modernization concerns effectively, recommendations include a thorough quantitative survey, financial impact assessment, analysis of post-modernization employment changes, monitoring public sentiment, comparing drivers' perceptions over time, engaging key stakeholders, using age frequency distribution, and adopting a mixed-methods approach. These suggestions aim to provide valuable insights, aid issue resolution, identify improvements, and support drivers through the modernization process. In summary, this study highlights varied impacts of jeepney modernization on driver perceptions. Despite potential benefits, significant opposition persists, particularly from drivers who view their profession as more than a job, investing time and energy into the world of jeepneys.***

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Keywords: Financial Needs, Individuality, Jeepney Drivers, Jeepney Modernization, Work Opportunities.

1. INTRODUCTION

The Jeepney Modernization Program in the Philippines is a pivotal initiative aimed at addressing environmental and safety concerns associated with traditional jeepneys. This study holds significant importance as it seeks to comprehensively investigate the execution, challenges, and effects of the program, with a specific focus on Indang, Cavite. The government's pledge to modernize the fleet of public transportation is contrasted with worries expressed by transportation associations, especially about possible financial costs and the possibility of independent operators falling into a monopolized debt trap. The government's promise to review the program with greater participation from stakeholders and the recent transportation strike highlight the changing dynamics between the affected parties and the authorities. The modernization initiative for jeepneys brings about a number of improvements and differences from the conventional jeepney, which have advantages and disadvantages for drivers and passengers alike. According to Andalecio et al. (2020), the upgraded jeepney that is now a common sight on Philippine roads is the modernized jeepney. These updated cars have notable features like a cashless payment system, Wi-Fi or internet connectivity to improve passenger convenience, and a GPS tracker for safe navigation. This change represents a step toward modernization and global competitiveness for the Philippines. A modernized jeepney costs between Php 1.2 and 1.3 million, which is a significant investment considering the current minimum fare rates. However, adding amenities like air conditioning significantly raises the overall cost. According to Whatalife (2023), this modernized vehicle is environmentally friendly since it produce less carbon emission and used electricity which promotes stop on using natural gas and promotes renewable energy. The goal of the localized perspective in Indang, Cavite, is to offer a comprehensive understanding of the program's effects on commuters, the community, and jeepney drivers. This will enable the contribution of insights that could be applied to other similar regions facing comparable situations. This study intends to add significant insights to the conversation about public transportation modernization while recognizing the need for improvements in the environment, economic impacts, and government-community dynamics.

2. RELATED WORKS

The Public Utility Vehicle Modernization Program (PUVMP) launched in 2017, includes numerous initiatives, including the phase-out of jeepneys. Normal jeepneys, according to the Land Transportation Franchising and Regulatory Board (LTFRB), are dangerous and environmentally destructive. It wants to replace jeepneys that are 15 years old or older with more modern, ecologically friendly models during the next three years (Mendoza, 2023). However, the proposal has been repeatedly postponed due to successive transport sector strikes, the COVID-19 outbreak, and subsequent government evaluations. The LTFRB published a memorandum circular outlining a proposed phase-out of traditional jeepneys, which would

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have removed motorists and drivers who had yet to formed or joined the cooperatives from the road by 30th June 2023 (Recuenco, 2023).

When it comes jeepney driver's life is a tough life to them since it involves their main job that would possibly lose. According to Meyer & Raskin (2020), every transport driver's life was difficult to even before the pandemic, especially the jeepney drivers, because the average income only covers their basic living expenses like food, rent, electricity, and other costs. Jeepney drivers initially thought of other ways to survive, while jeepneys are banned from driving. Most of them worked in construction to provide for their daily needs, and they say that when they work for their families, we can do nothing but fight and take care of ourselves during this crisis.

Due to this jeepney modernization a lot of transport strike happens every time around the Philippines. According Kusuma (2023) explained that the drivers of jeepneys in the Philippines organized strikes to oppose the jeepney phase-out in the name of sustainability. Jeepneys are vital to the Philippines' public transportation system because of their flexible routes and less expensive fares than taxis, trains, or motorized tricycles. Jeepneys were modified initially and reproduced from US military jeeps left over from World War II. By the end of 2023, operators of jeepneys must join cooperatives or corporations under this phase-out. Their ability to obtain loans and payment plans for "modern jeepneys" should be aided by this. The program plans to provide a 5.6% subsidy with a 6% interest rate for seven years of payments. According to Yu (2023), conventional public jeepney and minivan drivers would go on strike for one week from Monday, March 6, to Sunday, March 12, 2023. The strike, however, ends three days after it was called off on March 8, 2023, following a meeting with the Presidential Communications Office at Malacaang Palace, and transit would be restored on March 9, 2023. Manibela, a public transportation union that claims to represent 40,000 drivers, led the walkout. They wish to put an end to the PUV march-out, which was originally scheduled for June 30, 2023 (Hilotin, 2023). They have the support of the United Transport Federation, Laban TNVS, and commuter association PARA - Advocates for Inclusive Transport. Furthermore, the strike would take place in Cagayan de Oro, Central Luzon, Calabarzon, Bicol Region, and Metro Manila (Baroña, 2023).

3. METHODOLOGY

Using a quantitative research design, this study investigates the opinions of jeepney drivers in Indang, Cavite, on jeepney modernization. The study used primary data, which were obtained from the perception of the jeepney drivers and the fifteen questions that were to be answered on a 4-point Likert scale with an emphasis on employment opportunities, individualism, and financial necessities. Using purposive sampling, a sample size of 100 drivers who operate jeepneys was selected. Visits to different Indang terminals were used to gather data, and the Likert scale was used to assess the responses. To display the perception of jeepney drivers for each question and category, the data is interpreted based on the median of ungrouped data per questionnaire and category. The study uses the Friedman tests to determine whether there are any statistically significant variations in opportunities for job, individuality, and financial demands. In contrast, the study uses the Wilcoxon Signed Rank Test to determine whether there is a significant difference between two categories. The study's goal and rationale are

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explained to the participants, who also know that their personal information is kept private and won't be used in any way that could put them at danger for injury.

4. RESULTS AND DISCUSSION

Table 4.1. Frequency and Percentage Distribution of Socio-Demographic Profile of Participants

Characteristics	Frequency	Percentage
Age		
20-38	31	31
39-57	56	56
58-76	13	13
Work Experience in Years		
0-16	64	64
17-33	29	29
34-50	7	7
Jeepney's Driver Ownership		
Owner	53	53
Boundary	47	47

It shows that a lot of jeepney drivers is in the age range of 39-57 years old which is 56 percent of all participants. While there are 64 percent of the participants who is have experience from 1month to 16 years of experience driving a jeepney. There are 53 percent of jeepney drivers that owns the jeepney while 47 percent just boundary or rent the jeepney. According to Biona (2022), where there are 60 percent of jeepney drivers are in there late 30's and late 50's which shows a lot of jeepney drivers that in our country are in this age range.

Table 4.2. Financial Needs and Its Median of Ungrouped Data

Category 1. Financial Needs		
Questions	**Median**	**Interpretation**
1. Modernized jeepney will increase income of drivers.	2	Disagree
2. Jeepney drivers will get regular salary.	2	Disagree
3. Drivers are entitled to have social legislative benefits such as SSS, PAG-IBIG, PhilHealth, and others.	3	Agree
4. Standardized income for jeepney driver.	2	Disagree
5. Abolish boundary system.	2	Disagree
	2	Disagree

Legend: (a) 4(Strongly Agree); (b) 3(Agree); (c) 2(Disagree); (d) 1(Strongly Disagree)
The table above shows that jeepney drivers disagree with the program part of jeepney modernization on having a standard income for drivers, a regular salary, abolishing the boundary system, and increasing the salary of jeepney drivers. The jeepney drivers only agree on having unique benefits such as PhilHealth, SSS, PAG-IBIG, and other government benefits.

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Overall, the jeepney drivers show they disagree with the program part of jeepney modernization, focusing on financial needs. It shows that jeepney drivers fear jeepney modernization because they would lose income in this system. According to CNN Philippines (2020), many jeepney drivers lost their primary source of income because of the limited amount of modernized jeepneys and their prices. Also, it is stated that having a minimum wage of Php 500 – Php 600 would not give them enough money to sustain their daily needs compared to the money they earned in this pre-jeepney modernization where they could earn Php 1,500- Php 3,000 in the limited amount of jeepney trips. The money they earn that should be used to buy family needs and necessities would be used to pay the jeepney loan for this modernized jeep.

Table 4.3. Individuality and its Median of Ungrouped Data

Category 2. Individuality		
Questions	**Median**	**Interpretation**
1. Improve punctuality, people will be informed in advance of the schedule of routes which helps to travel faster and avoid congestion.	3	Agree
2. Drivers will no longer have difficulty collecting payments to the passengers because of automated fare collection	3	Agree
3. The modernized jeepney will be improved public safety features.	2	Disagree
4. The new vehicles are equipped with modern features such as air-conditioning and GPS tracking, and making it more convenient to drivers and passengers	3	Agree
5. Modernized jeepney will provide more comfortable options to the drivers, commuters and is also a PWD friendly.	3	Agree
Overall:	3	Agree

Legend: (a) 4(Strongly Agree); (b) 3(Agree); (c) 2(Disagree); (d) 1(Strongly Disagree)
Based on table 4.3 shows the jeepney drivers agree on the new system of jeepney modernization, which is having an air conditioning and GPS tracker on a modernized jeep, comfortability of passengers, a new scheduling system of jeepney that would help to lessen the traffic, and a new mode of payment. Overall, the jeepney drivers agree on the individuality of jeepney modernization. The safety, comfort, and convenience of jeepney drivers and passengers are one of the priorities of jeepney modernization. According to Andalecio (2020), improving the jeepney by having a system of payment, GPS, air conditioning, and many more could satisfy the passenger and drivers. Based also on the study, jeepney drivers wanted safety and security concerns to be solved so they would enjoy their trip with less stress and problems.

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Table 4.4. Work Opportunities and its Median of Ungrouped Data

Category 3: Work Opportunities		
Questions	**Median**	**Interpretation**
1. Jeepney modernization can increase employment opportunities for new drivers and workers.	2	Disagree
2. In terms of transport sector, higher job demand is possible.	2	Disagree
3. Modernized jeepney could create opportunities for new businesses and industries.	2	Disagree
4. Manufacturing and maintenance of the new jeepneys will create more job opportunities.	2	Disagree
5. The program could lead to the development of a more sustainable and efficient transportation system.	2	Disagree
Overall:	2	Disagree

Legend: (a) 4(Strongly Agree); (b) 3(Agree); (c) 2(Disagree); (d) 1(Strongly Disagree)
Table 4.4 shows that jeepney drivers disagree on increased employment opportunities for drivers, high demand for transport sector jobs, new business opportunities, manufacturing and maintenance jobs, and efficient transportation systems. Generally, the jeepney drivers disagree with all benefits under the work opportunities of the jeepney modernization program. The jeepney drivers would lose their jobs being jeepney drivers. According to Davao Toda ((2023), it states that monopolizing the transportation industry is one of the effects of this jeepney modernization. This modernization would lessen the number of jeepney drivers on the road since the number of modernized jeeps could not keep up with the number of jeepney drivers.

Table 4.5. Overall Interpretation of Jeepney Driver's Perception

Categories	**Median**	**Interpretation**	**Mean**	**Rank**
Financial Needs	2	Disagree	1.98	3
Individuality	3	Agree	2.49	1
Work Opportunities	2	Disagree	2.03	2
Overall:	2	Disagree		

Legend for Median: (a) 4(Strongly Agree); (b) 3(Agree); (c) 2(Disagree); (d) 1(Strongly Disagree) Table 4.5 shows the overall interpretation of jeepney drivers' perception in terms of three categories named financial needs, individuality, and work opportunities. The overall median for the jeepney driver's perception was computed using the per category overall median, having a result of 2 and interpreted as disagree. In simple terms, based on the overall perception of jeepney drivers, they disagreed with jeepney modernization. Moreover, the means of each category shows the overall interpretation of the perception of jeepney drivers. Since the financial needs have a 1.98 mean value and the lowest one, it shows that the jeepney drivers disagree a lot with the salary increase, standardization of income, and others. For work opportunities, it has a mean value of 2.03 and in rank 2 showing also disagree to the increase of employment rate of jeepney drivers and other jobs in the country. Lastly, the individuality

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has the highest mean of 2.49 shows also disagree on part of jeepney drivers on transportation and traffic system of the country.

Table 4.6. Table of Significance to Determine If there is a Significant Difference in The Categories Affecting the Perception of Jeepney Drivers

Statistical Analysis	Statistic	p-value	Decision	Remark
Friedman Test	48.914	0.0000**	Reject H_0	Highly Significant

**Highly significant at 1% level of significance

Table 4.6 shows the table of significance to determine if there is a significant difference in the categories affecting the perception of jeepney drivers. Using the Friedman Test as the statistical analysis, a statistic of 48.914 was computed. Since the computed value is approximately 0.0000**, therefore, the null hypothesis (H_0) will be rejected, having a remark of highly significant. All in all, the table indicates a significant difference in the perception of jeepney drivers on the jeepney modernization among three categories. The perception of jeepney drivers are different when it comes to financial needs, individuality, and work opportunites.

Table 4.7. Wilcoxon-Signed Rank Test

Wilcoxon-Signed Rank Test	Statistic	p-value	Decision	Remark
Financial Needs & Individuality	354	0.0000**	Reject H_0	Highly Significant
Financial Needs & Work Opportunities	1742	0.0071**	Reject H_0	Highly Significant
Individuality & Work Opportunities	383.5	0.0000**	Reject H_0	Highly significant

**Highly Significant At 1% Level Of Significance

Table 4.7 shows the significant difference between the categories of financial needs, individuality, and work opportunities if paired by two. Using a Wilcoxon-Signed Rank Test, in financial needs and individuality, it has a statistic of 354 and a p-value of 0.0000**, therefore, the null hypothesis (H_0) will be rejected, having a remark of highly significant. The financial needs and work opportunities, it has a statistic of 1742 and a p-value of 0.0071**, therefore, the null hypothesis (H_0) will be rejected, having a remark of highly significant. And lastly, for the individuality and work opportunities, it has a p-value of 0.0000** which also shows a highly significant. It shows that the jeepney drivers' perception is different from each category and it's doesn't affect each other. The jeepney drivers perceive the jeepney modernization in different ways. According to Westermann (2018), the jeepney drivers disagree on the price arrangement for one modernized jeep since the system of income or salary is not fair compare to current system which some earn more that the regular salary but for others their income is not enough for their daily necessities what else happen if the rent or loan for 1.2-13 million Php jeepney is added. For improvement of traditional jeepney is badly needed for some jeepney drivers, according to Manila Bulletin the traditional jeepney is way of global standard of transportation. Its effect on environment since emitted more carbon

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compare to modernized vehicle. The air condition, CCTV camera, and other safety features can be found in the new modernized jeepneys that ensure safety, comfortability and safety of every passenger and drivers. According to CNN Philippines (2020), the jeepney modernization will only lose jeepney drivers' main source of their income because of high prices of the new jeepneys that couldn't afford.

5. CONCLUSION AND RECOMMENDATIONS

The purpose of the study was to determine jeepney drivers' perception on Jeepney modernization in Indang, Cavite. After using the median of the ungrouped data, the general perception of jeepney drivers shows disagreement in the categories of financial need and work opportunity and agree on individuality. The researchers used the Friedman test to define the claims, and it shows that there is a significant difference in the categories that affect the perception of jeepney drivers about jeepney modernization. Therefore, the Wilcoxon - Signed Rank Test was used to group each category into pairs, and those pairs showed the same results, indicating a significant difference in jeepney drivers' perception of jeepney modernization.
In doing this study and defining the perception of jeepney drivers on jeepney modernization, future researchers may employ these recommendations. To begin with, gather quantitative information on the perception of modernization among jeepney drivers and determine the financial effects and other economic factors. Differentiate the perception of jeepney drivers before and after the modernization efforts for comparative analysis. Furthermore, it is very significant to include the jeepney drivers since their perception is required in this study. Researchers will find out how jeepney modernization will affect drivers' lives. Policymakers and other stakeholders will find this information helpful in addressing issues, pointing out areas for improvement, and assisting drivers in adjusting to modernization-related changes.

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