

Public Utility Jeepneys (PUJs) in Cebu City, Central Philippines: Regulations and Implications to Traffic Congestion

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Abstract---The study investigated how the Cebu City government regulates and implements its PUJ operations and traffic congestion. It also examined the traffic ordinances implemented by the local government. The study measured assessed the volume of PUJs plying on various designated city routes, its effects on the city's traffic congestion and its effectiveness of traffic management. A data mining technique was employed through secondary data collection on the volume PUJ from the offices of the Cebu City Traffic Operations Management (CITOM) and the Land Transportation Office Regional office No.7 (LTO7). A survey was also conducted to CITOM Officials and PUJ commuters and drivers. The findings revealed a declining numbers of PUJs and are heavily regulated in their specific routes. Research respondents perceived that traffic management and implementation are not effective. Most of them are not satisfied on the government's action in solving the traffic problems in the city. They believed that the local government put heavy teeth over the PUJs management as a public transport system whereas private vehicles are loosely managed since the city ordinance is loose on it. This implies that the traffic ordinance is vague and not updated for the problem. In conclusion, the volume of PUJs is not the critical contributor to traffic congestion, it is how effective the ordinance is implemented. Ultimately, strict and effective implementation of traffic rules and regulations of Cebu city's transport system are the areas requiring immediate attention to end perennial problem of traffic congestion in Cebu City.

Keywords---Traffic management, PUJ regulation and operation, local government Unit, traffic ordinance.

I. INTRODUCTION

The land transport system is a vital contributor to economic activities and mobility of people, goods and services within and between territories specially in urban centers like Cebu City. The need for an efficient transport system is very crucial to keep functioning the vast majority of road commuters and road cargo movements.

The unprecedented growth of urbanization has rapidly transformed the economic structure of local markets [1]. The infrastructures are growing bigger and buildings are sprouting like mushrooms in the metropolitan Cebu. The rising population needs more support of mass transport, to cope with the demands of people, good and services mobility. The government and the private sectors provide the means of transportation like public utility vehicles (PUVs), Taxi and PUJ's.

The increased volume of vehicles plying on narrow roads resulted to the current problems road congestions, uncontrollable increase of PUJs and none franchise vehicles. These problems arise from the uncontrolled increase of vehicles where has left to the free market forces, that is the increase volume of road dependent vehicles are left to the law of supply and demand.

The problems of increasing the mass transport can't be taken for granted. There is an urgent need to understand the transportation system and how to solve the worsening traffic congestion in urban areas, dissecting the root cause of these problems to design and implement appropriate public policies and solutions. The government also acknowledge that the problems cannot be solved without any reinforcement from the private sectors [2].

In the Philippines, PUJs are the most accessible means of public mass transportation bringing Filipino commuters to their destinations at the cheapest fare. The continuing growth of urban activities brings with it the need to accommodate the round the clock movement of commuters within metropolis and suburbs.

Small urban centers, like Cebu city, can hardly cope with the sprawling of local mass transport brought about by the new era of urbanization. Everyday, new registered vehicles are added to the road which can not anymore be unexpanded. Along this line, Cebu city needs to have an implementable legislation to address the burgeoning problem, else it must come to terms with daily traffic jam and road mess. Any city is designed to be a vibrant economic community, where people can freely move and access efficient road transport connecting city zones and its neighboring areas [3].

Today Cebu City is one of the most progressive and urbanized cities in the country. It is rapidly developing on technology and economy. Regardless of these excessive developments, there are still problems that beset the city. Comparing to the other developed cities in Europe, Cebu City is still suffering from the problems of urbanization intensively

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the traffic congestion and notable increase of PUJ's [14]. The government has to efficiently manage the city traffic congestion by legislating and implementing responsive ordinances and solutions which bring about fast road movements for commuters and every facet of economic activity.

Theoretical Background and Conceptual Framework

The study anchored its theoretical framework on the Political System Theory of Easton (as cited in Fisher) [4] which argues that a government uses the medium to undergo a certain process and make some outcome to represent a solution. Political system theory as a tool would represent the action of the state. There are three levels of political system theory; the input is a part of the system that contains the source of the problems; the process which is the procedure of determining the problems to have a solution.

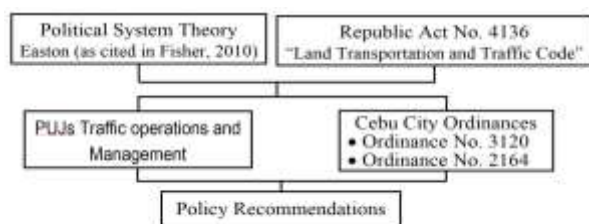


Figure 1. Schema of the Theoretical-Conceptual Framework

In this study, the volume of PUJ shows the input problem. The political system theory is the management of the government on the PUJ operations and regulation of the volume of PUJs in Cebu City. Volume of the PUJ shows the problem of the traffic congestion and improper management.

Table 1. Cebu City government ordinances on PUJs and traffic management

Ordinance number	Date Acted	Title of the Ordinance
3120	23 January 1989	An ordinance regulating the operation of PUJ's(Public Utility Jeepneys)
1264	19 October 1987	An ordinance that imposed the creation of the traffic management coordination committee or newly known as CITOM

The legal basis is the Republic Act No. 4136 otherwise known at the Land Transportation and Traffic Code of the Philippines. RA4136 is the mother of all traffic ordinances in the Cebu City. It shows traffic operation and regulation by ordinances. RA4136 foreshadows the limitation and the power of the state regarding traffic. The two Cebu city ordinances numbers 3120 and 1264 outline the government policy of the Cebu City.

Study Objectives

This study investigated how the local government managed and regulated PUJs operations in Cebu City. Specifically, it endeavored to (1) assess the traffic ordinances implemented by the Cebu City Government; (2)To evaluate the conditions of the volume of PUJs plying their routes in Cebu City and (3) dissect the effectiveness of Cebu city government in the implementation of its traffic ordinances.

II. LITERATURE REVIEW

As evident among third world countries, rapid urbanization and population expansion elicit the rising need for mass transport within urban centers and peripheries. Urbanization is greatly affecting the productivity and growth of economic development [6]. If the numbers are properly managed, a substantial community among countries will emerge, otherwise this will create spatial and environmental setbacks.

The establishment of the cities in the Philippines, the road and the zoning are simultaneously designed [5]. Cities are experiencing problems on traffic congestion with rising demand for mass transport and private transports. In 2007 alone, 41-42 traffic accidents daily were recorded due to road traffic mismanagement, a slight decline from 43 traffic accidents per day recorded in 2003 [7]. Previously in 2001, the National Statistical Coordination Board (NSCB) reported that 28% of these accidents came from drivers' error bringing the statistics to 674 traffic fatalities every year.

PUJs have been constant companions for most Filipinos serving as the primary mode of transportation due to their accessibility and low fare rates. PUJs are also link with the cultural value of representing Filipino identity. Originally, PUJs were made from the old American Will's jeep. Filipinos gave PUJ a look and extended the it a little bit longer so passengers can be accommodated. This upgrade was conceptualized to gain more passengers for profit [8]. Until today, there are some many manufacturers of PUJs in the Philippines.

After World War II, Cebu City was left without any concrete master plan for its transportation development [9]. PUJs are found all over the Philippines. The PUJ is made of various local and imported parts moving people daily in the whole archipelago and would halt whenever a passenger is in sight by the driver [10]. The continuing growth of urban activity and the expanding areas of cities and suburbs, movement within territories became more tasking, a scenario common in any developing country like the Philippines [10]. Since the 1990's, where the Philippines began to economically accelerate, the need for an efficient transportation system emerged with urbanization. Mass transportation demand sharply increased together with the demands for PUJs [11].

The City of Cebu is the second most progressive city in the Philippines, after the Meropolitan Manila. Almost all of Cebu city residents rely PUJs as the only mode of mass transportation. In the entire Metro Cebu urban transportation system, PUJs play a vital role not only for city commuters but also for the conservation of Filipino culture [11].

The migration of the people from rural areas to the highly urbanized Cebu city has been growing from the 1980's to 1990's up until present. The labor-demand driven growth of the people residing in Cebu City brings about higher demand for public mass transport [3]. In fact, the Cebu metropolitan area has been catch basin of opportunities and commerce where many people have migrated into this part of the archipelago [12].

III. RESEARCH METHODOLOGY

The researchers collected secondary data from existing records of CITOM, LTO7 and LTFRB. In addition, a survey utilizing a survey questionnaire was carried out following a systematic random sampling to identify the actual survey respondents. At five (5) minutes interval, the researchers gave the survey questionnaires to PUJ commuters who had ridden a PUJ. Likewise, randomly selected PUJ commuters, PUJ drivers and Traffic enforcers were also interviewed. The actual respondents included PUJ drivers, daily PUJ commuters and CITOM field enforcers and officials comprising and aggregate 250 samples. The questionnaire was composed of 10 questions following a likert's scale measuring the degree of agreement regarding their perceptions on traffic operations and management. The CITOM's, The drivers and commuters' knowledge and opinions constituted the primary sources of data for the study. The CITOM provided the official information on the city's traffic management and operations.

IV. RESULTS AND DISCUSSION

In the interview of the CITOM board, the PUJs are operated and regulated by the government authorities comprising a "Team Work " of the three branches; namely, the CITOM, the LTFRB and the LTO7. The three government branches coordinated and help each other in the implementation of the Cebu City ordinances on the city land transport system.

By responsibility, the LTO7 takes charge of the registration of the PUJ drivers. Complete registration signals their accreditation to ply and operate PUJ designated routes. Drivers' qualifications are specified in the traffic code. They are expected to fully know all the traffic rules of Cebu city and how to drive. The main task of the LTFRB is to regulate the franchise of the PUJs. It would assign the label, a combination of letter and numbers, for PUJs plying the road networks in Cebu City. The CITOM manages the PUJs operations where it regulates the routes followed on by PUJs.

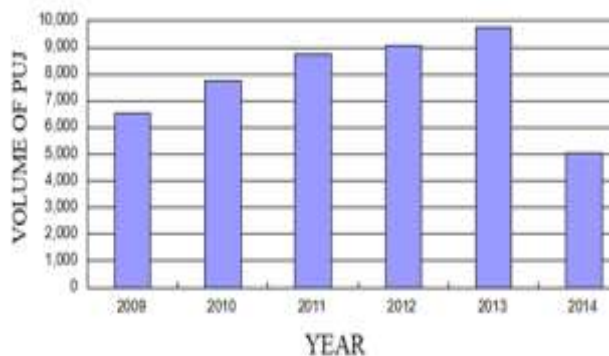


Figure 3. Volume of registered PUJ in Cebu City
Source: Land Transportation Office, Region VII, Philippines

During the interview, the Cebu City government respondents confirmed that PUJs are not the primary culprit of traffic congestions, rather the private vehicles [13]. CITOM officials also noted that the ordinances are silent about managing the private vehicles, they need amendments and

updating. Evidently, there is no strong grip of the traffic management entities in Cebu City.

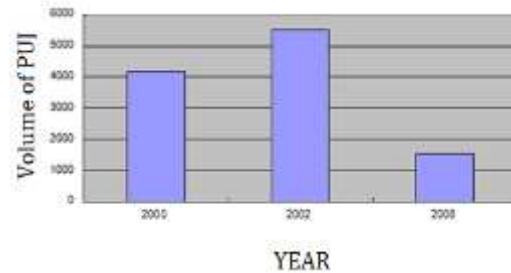


Figure 2. Volume of PUJs in Cebu City, 2000-2006
Data source: Cebu City Traffic Operations Management (CITOM)

The regulation of the operations of PUJS is articulated in the City ordinances No. 3120 where penalties are specified and the routes they are permitted to ply. The provisions of the Cebu city are parallel to the provisions of R.A. No. 4136. Moreover, the Cebu city government passed city ordinance no. 1264 articulating the traffic management to be enforce by the CITOM which administer and implement the traffic rules in the field. Both ordinances however are silent on the management of private vehicles. Only PUJs are covered by the two ordinances.

There was an increase on the volume of PUJ from 2009 to 2013, in response to the rising Cebu city population causing the commuters demand to rise [3]. Just like any urbanized areas of the country, the PUJ is the most in-demand public transport in Cebu City as more and more people came to live in Cebu city.

Table 2. Perception of the effectiveness of regulation and implementation of PUJ

Comprehensive chart on perception of the respondents to traffic management		WM	SD	Description
1	There is a heavy traffic in Cebu City	1.809	1.057	strongly agree
2	The numbers of PUJ are increasing	1.791	1.049	strongly agree
3	Government manages jeepneys well.	4.591	1.423	disagree
4	Poor traffic management contributes to heavy traffic.	2.029	1.250	agree
5	The traffic ordinances are properly applied.	3.694	1.359	tend to disagree
6	People are obeying traffic rules.	3.837	1.428	tend to disagree
7	The traffic management of Cebu city is very efficient.	4.783	0.782	disagree
8	The Cebu city government needs improvement in implementing the traffic management.	1.800	1.060	strongly agree
9	The people are aware of traffic rules and ordinances.	3.191	1.386	tend to agree
10	CITOM are efficient in managing the traffic.	5.211	1.423	strongly disagree
		GENERAL MEAN	OVER ALL SD	NUMBERS OF RESPONDENTS
		2.952	1.61	350

Range for the weighted mean

- 1.000 - 1.833
- 1.834 - 2.666
- 2.667 - 3.499
- 3.500 - 4.332
- 4.333 - 5.165
- 5.166 - 5.998

Degree of Agreement

- Strongly Agree
- Agree
- Tend to Agree
- Tend to Disagree
- Disagree
- Strongly Disagree

PUJs are not the main reason of the traffic congestion. It is the kind of regulation that the government imposes and the unclear provisions of the city ordinances provided for traffic management affect the heavy traffic.

Cebu's economic development brings about employment and livelihood opportunities attracting people's movement

from rural to the urban areas of Cebu City. This movement has resulted to uncontrolled population expansion and consequently increased volume of daily commuters. Since the vast majority do not own cars, the demand for PUJs rises.

Table 2 revealed that daily commuters strongly agree about heavy traffic already happening in Cebu city (WM=1.809) indicating that there indeed exist traffic congestion. In like manner, respondents viewed that the volume of PUJs are on the rise, though they are not based on secondary data which revealed a declining number of registered PUJs [15]

The large majority of the research respondents had the notion that the Cebu City government is not effective in managing traffic congestions. And they agree that poor traffic management contribute to heavy traffic. Cebu city commuters also perceived that the city traffic ordinances are not properly implemented. Many respondents also affirmed that they are aware of traffic rules and ordinances but they didn't really care about it since the ordinances are not efficiently and properly applied.

On the effectiveness of the Cebu City government in implementing the traffic regulations, majority of respondents noted Cebu city government is not effective when it comes to traffic management. Cebu city residence are not witnessing any concrete actions from the part of the government to ease the traffic, not much because of the PUJs, but more so because of the uncontrolled increase in the volume of private vehicles plying in the city narrow roads. In fact, both Cebu City government and the CITOM are seen to be ineffective in implementing traffic rules and regulations.

V. CONCLUSION AND RECOMMENDATIONS

Based on the foregoing discussions, PUJs are regulated by the Cebu city government through the CITOM. City ordinances on traffic management are vague and do not have provisions for the management of vehicles, rather they focus more on PUJs control and operational management. The volume of PUJ is decreasing while the occurrences of heavy traffic are on the rise. Many people are aware of the ordinances but don't obey them because the government is not strict in implementing the rules. The provisions in the ordinances are loose making the government incompetent in their implementation. Finally, the government is not dynamic in solving traffic management problems.

Based on the foregoing findings and conclusion, the following recommendations are put forward. There is a need to amend the existing Cebu City ordinances (nos. 3120 and 1264) to cover all kinds of vehicles aside from PUJs. The government must be objective in imposing the fines for the traffic rules violators especially the PUJ. The government needs to be consistent and fair in its rules and regulations especially towards PUJs which are usually under heavy and tight regulations. People must follow the rules imposed by the government. Without any cooperation of all sectors of the society, traffic congestions will remain a perennial problem.

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