

Modernization of “Transport” As Public Transportation to Reduce Personal Vehicle Ownership in the City of Tanjungpinang

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Abstract: The Riau Archipelago, which consists of islands, has its own challenges in terms of infrastructure and transportation development, so that the development and growth of each region is not the same, namely with five regencies and two municipalities. The Riau Archipelago has high potential in its tourism sector because each island has its own beauty and exoticism. Tanjungpinang City as the Capital of the Province in the past decade has begun to develop and organize itself to be better in regional order but not yet in its transportation system. Public transportation has not been felt as a very important thing because people can still walk freely by using their private vehicles. Public transportation is still not a matter of urgency in the next decade. This research is a descriptive research, descriptive research is a type of research whose purpose is to present a complete picture of a social setting or is intended to explore and clarify a phenomenon or social reality, by describing a number of variables related to the problem and units studied among the phenomena being tested. Here it will be explained based on a study of the factual conditions of transportation in Tanjungpinang City and their relevance in the next decade.

Keywords: Public Vehicles, Riau Archipelago, Tanjungpinang City, Transportation

A. Introduction

Transportation is an important part of people's lives. Transportation comes from the Latin word where *Trans* means across or on the other side and *portare* means transporting or carrying. Meanwhile, according to transportation is the activity of moving goods (cargo) and passengers from one place to another. Transportation can be defined as businesses and activities of transporting or carrying goods and/or passengers from one place to another (Rith et al., 2019a) (Sinaga, 2022).

Tanjungpinang City is the capital of the Riau Archipelago Province which broke away from Riau Province and formed its own Province through Law No. 25 of 2002 concerning the Formation of the Riau Islands Province. Tanjungpinang City has a population distribution of 227,663 (2020 Tanjungpinang City BPS data) with an area of 239.5 square kilometers, part of which is marine waters. The city of Tanjungpinang is also famous for its Malay history, its seafood specialties that attract tourists to visit. After the Covid-19 virus has passed, it is certain that the surge in tourism will begin

to slowly increase (Widesma & Adnan, 2019). It is time for tourism cities in Indonesia, especially the Riau Archipelago Province, to start improving themselves, especially in the area of regional planning and also their modes of transportation (Kapskiy & Navoy, 2017).

With existing technological advancements, we all know that online transportation is now the only easiest and fastest alternative that can be used by the public. However, if this online transportation remains the only existing mode of transportation, will it be relevant to the Tanjungpinang City area itself for the next decade, for example, because population growth will continue to grow and in line with increasing vehicle ownership (Harto et al., 2021). Does Tanjungpinang City tend to be the same as other big cities which cannot be separated from traffic jams?

The congestion has an impact on environmental conditions, namely motor vehicle pollution where there is still a lot of use of fuels that are not environmentally friendly and lack of motor vehicle maintenance (Diaz Olvera et al., 2016). As a result, it is not only road users who incur high vehicle operating costs, but the surrounding environment suffers from the pollution. These problems can be overcome by good transportation planning, which starts with consistent land use planning, planning regular generation and attraction centres, planning transportation infrastructure and facilities by paying attention to generation and attraction centres, providing comfortable, safe and inexpensive public transportation (Dewi et al., 2021). So that an efficient, safe and smooth transportation system will be realized (Pratiwi & Wikantiyoso, 2022).

Some of the objectives of mass transportation planning are: 1) prevent problems that are expected to occur in the future; 2) serving the needs of the community for transportation needs as optimally as possible; 3) identify community problems with transportation and their solutions; 4) Prepare policies for future issues

Problem Identification

Increasing population growth will affect the increasing need for transportation equipment. At present the most practical choice for the people of Tanjungpinang City is to own a private vehicle, for example two-wheeled vehicles or four-wheeled vehicles. Identification of the problem is:

1. The number of private vehicles will continue to increase and will affect the condition of road availability.
2. Road widening and construction of flyovers should not be a priority and an option considering that they do not generate turnover from an economic perspective.

Research question

1. In accordance with the identification of the problems above, the following questions can be made:
2. Will the existing road area be able to accommodate existing vehicles in the next decade?
3. Are widening roads and building flyovers an effective and efficient alternative?

Research purposes

The purpose of this study is to try to describe the importance of transportation for life in a regional setting, especially land transportation for the City of Tanjungpinang considering that Tanjungpinang City as the Capital of the Riau Archipelago Province must provide a better mode of transportation considering that Tanjungpinang City is located adjacent to the State of Singapore which has a mode of transportation. Very advanced transportation. For now, Tanjungpinang City has not yet experienced the phenomenon of road congestion, but it is certain that in the future along with the development of community growth and the development of vehicle ownership, Tanjungpinang City will inevitably experience road congestion.

Literature Review

According to (Hasselwander et al., 2021) transportation is a derivative need or second need, in community economic activities. Transportation is also used as one of the variables that have an influence on the wheels of the economy (Sidabutar & Indra, 2021). As a support, driving force, as well as driving the economies which are several functions of transportation (Rith et al., 2019b).

Portrait of Highway in Tanjungpinang City

The city of Tanjungpinang has a flat and hilly land structure, but roads have been built in such a way that the road conditions are not too steep. The condition of roads that used to be adequate over time has not become adequate due to the increasing number of vehicles every year. In addition, the arrangement of parking lots that are not perfect is also one of the causes of road narrowing.



Tanjungpinang City Merdeka Street

For some locations/areas in Tanjungpinang City, road expansion is no longer possible, because it is very close to buildings that were established long ago. Management of parking lots is needed so that similar locations avoid traffic jams and

become orderly locations. Like ideally roads in other cities, Tanjungpinang City has an average road area of + 5 to 6 meters, both for two-way and one-way (forbidden) roads. During peak hours in Tanjungpinang City, long traffic jams are common.



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As the capital city of the province, road spatial planning should be a priority for the government. However, spatial planning is not the only way that must be done, namely proper and appropriate mass transportation.

Mode of Transportation in Tanjungpinang City

The city of Tanjungpinang is one of the cities whose mode of transportation is not very good. It has been tried to make regular transportation but it is not consistent and returns to normal. The modes of transportation in Tanjungpinang City include:

Pinang residents call it 'transport'

Transport is a type of carry car that can transport a maximum of 10 (ten) people in a sitting position facing each other. This public transportation can be stopped along the side of the road and if it matches the route of the passengers who are already inside, we will be allowed to board. *Transport* has been around since before the Riau Archipelago separated from Riau Province (the exact year cannot be ascertained).



Transport

Brother Ojek

Before internet technology, as it is today, in his era, motorcycle taxis were the fastest alternative to take residents to their destination without having to go round

and round first, such as using transportation. Usually, we can meet ojek brothers at every intersection of alleys or roads. In fact, not infrequently the ojek brother already has a subscription to be delivered every day. Now the ojek brother is almost extinct and replaced by an easier online ojek.

Taxi

In Tanjungpinang City, taxis can only be found around the airport and seaport. Taxis are not used by the people of Tanjungpinang City as the primary means of transportation, taxis usually only take guests/visitors from out of town. But increasingly here the number of taxis is getting less because the rates are considered quite expensive and sometimes guests/visitors also prefer to take a motorcycle taxi or now an online motorcycle taxi.

Buses

This mode of transportation is only used to take school children, employees of private and state offices, and has not been used as a means of transportation for the general public. Whereas for bus transportation modes it should be more effective and efficient than other modes of transportation. To reduce the rate of private vehicle ownership, buses are an alternative to being a convenient and scalable mode of transportation. Following the example of neighboring countries such as Singapore, buses have become the favorite mode of transportation for its citizens, in addition to reducing the number of purchases of private vehicles because they are safer, more comfortable and affordable.

Online Transportation

In the era of all-sophisticated technology, online transportation is one that is practical, one push comes straight away. In Tanjungpinang City online transportation starts in 2018/2019, it is free and can be ordered anywhere and anywhere.

Of the modes of transportation that have been described, the City of Tanjungpinang does not have traditional transportation, and trishaws are also only used to transport goods from the main road to the inner market where pick-ups cannot enter.

B. Methods

The research method used to gather information in this study is to use literature and field studies. The literature method is collecting data and information from books, scientific journals, and scientific articles as a reference then the field study method is collecting data and information directly from the field.

C. Results and Discussion

Suppressing Total Vehicle Purchasing Power

According to data from the Riau Islands Regional Police, the number of vehicles in Tanjungpinang City as of November 2022 was 23,945 private cars, 157,310 motorized vehicles, 229 buses, 5,650 mini buses and 141 special vehicles. This figure will continue to grow due to the easier access to motorized vehicles.

With the existing roads in Tanjungpinang City, it is inevitable that there will come a time when Tanjungpinang City will become a congested city. Seeing the phenomenon in big cities in Indonesia, the City of Tanjungpinang should have been able to take anticipatory steps other than building a road widening or building a flyover. Not because it is considered unimportant, but in addition to development, the Government should take strategic steps in other fields which could actually increase regional income. Suppressing the level of people's purchasing power for vehicles is certainly not an easy thing, but how can the people themselves prefer to take public transportation modes rather than buying private vehicles. Seeing how in Singapore the busway mode of transportation is a convenient choice for its people.

"Transport" as public transportation for the city of Tanjungpinang

Tanjungpinang City is located on the same island as Bintan Regency, the border between Tanjungpinang City and Bintan Regency is at kilometer 16 marked by the Tugu Payung.



Border of Tanjungpinang City and Bintan Regency

Tanjungpinang City starts from kilometer 0, namely in the Old City which is the beginning of all community activities, as the population growth of Tanjungpinang City has grown to 16 kilometers. Development of public transportation in Tanjungpinang City can be started by modernizing the mode of transportation as public transportation. For the size of the roads in Tanjungpinang City, it is felt that the busway will be quite difficult to serve as a public transportation facility, considering that the busway requires special lanes and corridors. The Tanjungpinang City route which has more small roads is also one of the factors that the busway is not efficient enough as a means of public transportation. Therefore, how can the City of

Tanjungpinang maintain its local wisdom in its mode of transportation but not be out of date.



Transport / Trans Tanjungpinang-city documentation

This white car of a carry type is one of the public transportation in Tanjungpinang City. Some people also call it an angkot, but in Tanjungpinang it is also known as Trans (short for Transport). Transport used to be managed by individuals and companies, during that time transport became one of the means of transportation for almost all the people of Tanjungpinang City. However, because it is easy to get a private vehicle, transportation is slowly no longer a need for the community. Transport is getting less in number from year to year. Government intervention is needed so that transport can resume operating as a more modernized public transport.

Transport planning as public transportation can be described as 1) the size of the existing transport is considered too small, so the Government can modify/replace the fleet with a slightly larger type from the previous; 2) designing the exterior of the fleet with Malay writings and ornaments. For example, given the name "Kite Village Transport"; 3) Comfortable interior design; 4) recruiting fleet drivers formally minimizes unnecessary actions corresponding; and 4) the enactment of scheduled routes and stops according to available stops.

Benefit

The enactment of a culture of using public transportation has many benefits for an area itself. The benefits that can be obtained from imposing public transportation are 1) avoiding severe congestion in an area; 2) the transportation system managed by the Government can generate regional income itself; 3) information about a clear route will make it easier for tourists to move from one location to another; 4) reducing air and environmental pollution; 5) reducing the level of traffic accidents that are often experienced by private vehicle drivers; 6) more economical in terms of financing; 7) with the existence of public transportation and the majority of people using public transportation, the culture of walking will also be carried out more frequently. So that people also receive additional benefits, namely being healthier; and 8) growing a

social soul as a human being in society. The government's role is needed in socializing that by using public transportation there are many benefits to be gained by the people, so that people are more interested in using public transportation than private vehicles.

Strategy

Various kinds of strategies are implemented by developed countries in the world so that people use public transportation more than using private vehicles. The Japanese state limits people's private vehicle ownership by imposing parking fees, toll fees and expensive fuel; they also impose severe sanctions on private vehicle owners who commit violations. Likewise with the State of Singapore, they implement a pull and push strategy, namely providing proper transportation to their people and providing strict rules for private vehicle ownership. Habits carried out by people in developed countries are not simply created; the government has carried out various regulations in implementing the transportation system for its people.

Strategies that can be carried out by the City of Tanjungpinang in implementing public transportation as the choice of its people are 1) providing an easy and safe mode of transportation for the community; 2) management of the parking system, namely requiring the public to have adequate parking space at their residence, because the majority of the people of Tanjungpinang City use public roads as parking lots; 3) tax compliance, in the sense of being given fines/sanctions to vehicle owners who do not pay taxes. Public transportation planning and strategy must be carried out early, slowly and consistently with clear regulations. The success of a country or region in implementing a public transportation system will of course encounter obstacles and social clashes.

State Transportation System of Singapore and Malaysia

Adjacent to Singapore and Malaysia, Tanjungpinang City has a transportation system that is quite far behind. Singapore is a country that has transportation with good planning and systems.

Public transportation used by most Singaporeans include: 1) Mass Rapid Transit, is one of the best transportations and is the pride of Singapore, the MRT is used by the majority of the population and the majority of visiting tourists. The MRT is considered more economical compared to taxis or private vehicles, because in Singapore, to have a private vehicle, you must pass several conditions set by the government; 2) Light Rail Transit, the difference is that the MRT, which has routes to almost the entire mainland area of Singapore, the LRT takes passengers to residential areas. Singaporeans often use the LRT to reach the station and then transfer to the MRT. Usually, LRT trains only consist of one to two cars; 3) Buses, are also a favorite mode of transportation for its citizens, not only cheap and comfortable, buses also make it easier for passengers to get closer to their destinations. In addition, by taking the bus, passengers can simultaneously enjoy the beautiful and majestic scenery of Singapore; 4) Taxi, as in Indonesia, taxis are the right choice to travel quickly and have more expensive fares compared to other public transportation. Usually, taxis are chosen

only if travelers are traveling at night when public buses and the MRT are no longer operating.

From an overview of the existing modes of transportation in Singapore, the strategy for the public transportation system is very sustainable with its regional arrangement. It can be said that the transportation system and regional arrangement need each other. Restricting public vehicle ownership and imposing certain rules on public vehicle ownership is a good strategy to improve the country's economy, with this strategy also directly encouraging people to use public transportation which adds to and improves the country's economy.

Singapore also scores highly for the sustainability of its public transport system, with the world's safest and ecologically sustainable transport system. More than 80 per cent of residents surveyed stated that they are satisfied with the overall condition of public transportation and are more comfortable using public transportation than using private vehicles.

Public Transportation in Malaysia

Malaysia has several types of rail-based transportation. These types of transportation include KL Monorail, KLIA Express and KLIA Transit, MRT, LRT, and KTM Commuters. What's interesting is that all of this transportation, except for the KTM Commuters, has been well integrated with one another. This system is called the Klang Valley Integrated Rail Transit, 1) KL Monorail, is a rail-based mode of transportation which operates in a hovering manner and only has one lane; 2) Light Rapid Transit, having more than one line, this LRT is one of the modes used by some Malaysians; 3) Mass Rapid Transit, almost the same as the LRT, the MRT has more routes than the LRT; 4) Buses, Malaysia divides 2 types of bus public transportation into 2 types, there is one called the Go KL Bus, which is a mode of bus transportation intended for tourists and Malaysian citizens, the Go KL bus is free (free). Then the type of bus transportation called Rapid KL, this bus is used for public and paid; and 5) Taxi, as in other countries in general, taxis in Malaysia use a meter and are relatively expensive transportation.

D. Conclusion

Transportation planning has a close relationship with regional planning because both are fields that explain the complexity of an activity that can cause various problems in almost all sectors. The transportation system does not just run well, there needs to be a consistent strategy, regulation and implementation from the government to the people. The implementation of public transportation in Tanjungpinang City can be started by continuing to use existing modes with modifications and a touch of local wisdom. The progress of a country should continue to be carried out on an ongoing basis, because one progress in a certain field will have an impact on other fields.

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