Conference Paper

The Traffic Ethics in Land Transportation

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Abstract

Transportation is vitally important to connect and provision human societies. Almost all activities that people carry out on a daily basis are related to the use of transportation structures. This makes it easy for people to move places or goods to a specific destination. Study employs qualitative research to consider the importance of overland transport in the construction and maintenance of human societies.

Keywords: Socialization; Togetherness; Land transportation.

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1. Introduction

The term transportation is familiar to our ears, because we have used it in everyday life, to support all the necessities of life. Transportation is a process of movement carried out by both humans and goods from the place of origin to the destination. (Forrest E, Harding. (1976). Pass Transportation. p. 98) Transportation in this world all connect with each other and have advantages and disadvantages but each serves to ease the burden on humans. Meanwhile, the definition of a means of transportation is an object that moves and is capable of transporting both objects or humans from one place to another.

Land transportation is a vehicle that is used to assist all kinds of human forces who use the road as a medium for transporting goods or passengers. Almost all activities that people carry out on a daily basis are related to the use of transportation structures. This facility makes it easy for people to move places or goods to a specific destination. Before the development of technology, people used animals as a medium of transportation to transport goods. However, over time the community has used means of transportation driven by machines.

Transportation is a process of moving or transporting humans, animals and goods from one place to another by means of transportation. Transportation Tool is a tool or vehicle that is used to facilitate the process of moving or transporting humans, goods and animals from one place to another. The means of transportation such as traffic signs that exist throughout the world are all interconnected with each other and have their

advantages and disadvantages in order to reduce the human burden. Transportation is a means to make it easier for someone to carry out activities with existing tools on land, sea and air as a link.

2. Research Methods

This type of research is a qualitative method. According to stating that qualitative research methods are the most appropriate type of research method in capturing human perceptions only with direct contact and open-mindedness and through inductive processes and symbolic interactions humans can know and understand something. (Alwasilah, Chaedar A. (2003). Pokoknya kualitatif. Jakarta: PT Dunia Pustaka. p.5) After conducting analysis and research related to the definition of qualitative research then making their own definition as a synthesis of the main understanding of qualitative research.

3. Results and Discussion

3.1. The elements that underlie the means of transportation

Below there are several elements that underlie the means of transportation, namely as follows:

1. Human, which requires Means of Transportation for daily activities.
2. Goods, what humans need to make ends meet.
3. Vehicle is a means that can help human work.
4. Street is the infrastructure for the transportation route.
5. Organization is a member who manages transportation activities.

Accessibility or ease in achieving strategic places is the main attraction for a city. Cities that have high accessibility will support their economic activities in addition to being an attraction for immigrant traffic. (Sutomo, Heru Sutomo. (1992). Prospek Penggunaan Ruang Bawah Tanah Untuk memperbaiki Sistem Lalu Lintas Kota. Yogyakarta: Teknik Sipil UGH. p.19) Land transportation is chosen based on the following factors:

1. Types and specifications of vehicles
2. Travel distance

3. Purpose of the trip
4. Mode availability
5. City size and settlement density
6. Social factors
7. the economy

3.2. Functions of Means of Transportation

There are several functions of Means of Transportation in human life, including: (Buchari, E. (2008). Angkutan Umum Multimoda, Alternatif Perencanaan Transportasi yang Sustainable, Jurnal Khusus FSTPT Volume 3, FSTPT: Jakarta. Accessed on 17 October 2020)

1. As a means that can facilitate various types of human activities in everyday life.
2. To speed up the process of moving people or goods that human need. As a means of supporting development in an area.
3. To support economic development in a country with transportation services.

Circulation nodes occur as a result of a shift between transportation facilities which will cause circulation to stop, or a new circulation occurs, and on the other hand, circulation activities can continue. At the time of changing means of transportation, there is a point of displacement which is called the critical point.

Land transportation is an object that moves and is able to move objects from one place to another via land. (Ibid)

3.3. Traditional Transportation Tools

1. Cart

   Cartor cart or train is a vehicle or tool that has two or four wheels which are used as a means of transportation. Carts can be pulled by animals such as horses, cows, goats, and zebu or can be pulled by humans.

2. Camel

   Camel or Camels are two species even-toed animal from genus Camelus (one hump single - Camelus dromedarius, another double hump - Camelus bactrianus)

which live found in dry areas and desert in Asia and AfricaNorth. The average life expectancy of a camel is between 30 and 50 years.

3. Horse

   Horse (Equus caballus or Equus ferus caballus) is one of ten Modern species of mammals of the genus Equus. This animal has long been one of the most economically important livestock, and has played an important role in the transportation of people and goods for thousands of years. Horses can be ridden by humans using a saddle and can also be used to pull something, such as a wheeled vehicle, or a plow. In some areas, horses are also used as a food source.

4. *Delman*

   Delman is a two-wheeled transportation with horses that can pull carts, the maximum number of passengers behind is 4-6 people. *Delman* is a traditional means of transportation that only exists in certain areas such as Solo, Yogyakarta, Magelang, Semarang and its surroundings. To drive a wagon, you don't need special rules.

5. Rickshaw/ pedicab

   A pedicab is a three-wheeled transportation with a driver behind and a passenger in front, with a maximum number of two passengers, pedaled by foot. If the rickshaw is driven by a machine it is called a motorized rickshaw.

   This tool is commonly found in Asian countries such as India, Indonesia, Vietnam, and Malaysia. In Indonesia, pedicab drivers do not have special requirements, such as when you drive motorized transportation (cars, motorbikes). The age of the driver is also mostly not taken into account.

6. Bike

   Bicycles are two-wheeled transportation that is driven by pedaling, without engines. Bicycles are quite affordable and are highly recommended for sports.

3.4. Modern Transportation Tools

1. Private car

   Is a means of transportation that has 4 wheels, moves using a machine, and can accommodate up to 10 people.

2. Motorcycle

Is a land transportation that has 2 or more wheels, is driven by an engine, and can accommodate about 2-3 adults.

3. Truck

   A truck is an 8-wheeled transportation tool that is driven by an engine, at the front it can only fit 2 - 3 people while the back is a large wooden box that functions to accommodate goods. There are conditions that you must know to drive a truck, including being able to pass this vehicle test, have a SIM B, STNK, BPKB, have an operating license, a KIR card.

4. Bus

   Is a means of transportation that has 8 wheels, moves using an engine and can accommodate up to 65 people. This transportation serves to transport passengers from one place to another.

5. Bajaj

   Bajaj is a three-wheeled transportation, which looks like a rickshaw but has a lid with the front of the driver and the rear of the passenger numbering two. For the Jakarta and surrounding areas, the bajaj is still allowed to operate, but only in certain areas.

6. Train

   Is a means of rail transportation that operates using a diesel engine and consists of a series of train carriages drawn along the railroad track used to transport passengers or goods.

The land transportation system which is developing rapidly requires proper management and arrangement. To achieve the ideal transportation system, therefore in its development and development it is necessary to pay attention to its effects on humans and the environment. The effect of the transportation sector on the environment needs to be controlled by looking at all aspects that exist in the transportation system, starting from transportation system planning, including transportation models, facilities, traffic flow patterns, types of vehicle engines, and the fuel used.

The choice of transportation model is determined by considering one of the main requirements, namely that the transfer of goods and people is carried out in the largest number and the smallest distance. Mass transportation is a better option than individual transportation.

Transportation system planning must be accompanied by the provision of appropriate infrastructure that meets transportation requirements and criteria, including storage

volume, average speed, peak flow, and road user safety. In addition, it must also meet environmental requirements which include surface types, safety for occupants along the road, noise, air pollution, greening, and lighting. (B, MARTS. (1996). Metropolitan Area Urban & Sub-UrbanRailway Transportation System, Final Report, Directorate General of Land Transportation. Bandung: Department of Communications. p.56)

3.5. Environmentally Friendly Transportation System

In achieving an environmentally friendly and energy efficient transportation system, the requirements for the basic specifications of road infrastructure are very decisive. Smooth road surfaces, for example, will reduce dust pollution emissions due to tire friction with the road. Acoustic screens or earthen stumps and green lines along the highway will reduce the noise level of the residential environment around and along the road, and will also reduce air pollutant emissions outside the high speed road boundary.

In this context, to reach this land transportation system, there are several things that need to be carried out, including:

1. Traffic engineering.

   Traffic engineering in particular determines the course of the planned transportation system. Energy savings and pollutant emission reduction can be optimized in an integrated manner in route planning, average speed, mileage per vehicle per destination (vehicle mile trip and passenger mile trip), and so on. Basically, the driving pattern / cycle can be planned through traffic engineering.

   Data on the exact driving patterns and cycles in Indonesia are not yet available. In planning, the main consideration applied is that the traffic flow is as smooth as possible, and with the least possible travel time, as can be tested with the origin-destination model. By minimizing the travel time from each point of origin to the respective point of destination, maximum fuel efficiency and reduction of air pollutants can be achieved.

2. Control at the source (vehicle engine).

   The type of vehicle used as a means of transportation is part of the transportation system which will have an impact on the physical and biological environment due to air pollution and noise emissions. Both types of pollution are largely determined by the type and performance of the engine used. Pollution control requirements such as those applied by the United States (US) have proven to bring about major changes in the planning of motorized vehicle engines circulating in the world today.

Since 1970, along with the energy crisis and the air pollution phenomenon in Los Angeles Smog, the Federal Government issued stringent requirements to control motor vehicle emissions and fuel efficiency.

Changes made in the engine plan, including installation (valve) PCV false carburizing system, ignition system that allows more complete combustion, circulation of fuel oil vapor (BBM) to reduce fuel tank emissions, and after burner to reduce emissions. Meanwhile, retrofit technology is required by installing a Retrofit Catalitic Converter to reduce HC and NOX emissions and dust (TSP). This technology has major implications for the BBM system, because TEL can no longer be added to BBM.

3. Transport energy.

   The magnitude of the emission intensity issued by a motorized vehicle is determined not only by the type and characteristics of the engine, but also by the type of fuel used. As well as using LPG, it will allow complete combustion and high energy efficiency. In addition, in the context of efforts to control exhaust gas emissions, if retrofit equipment is used, fuel requirements, specifically lead free, are required.

3.6. Traffic signs

Traffic signs are part of road equipment that contains symbols, letters, numbers, sentences or a combination of which functions to provide warnings, prohibits orders or directions. (S, Warpani. (2002). Pengelolaan Lalu Lintas dan Angkutan Jalan. Bandung: Institut Teknologi Bandung. p.24)

1. Types of Signs

   (a) Sign warning

   Are signs that warn of dangerous and potentially dangerous conditions so that drivers are careful when traveling in vehicles.

   (b) Prohibition signs

   These are signs to prohibit the use and movement of traffic, for example, prohibited stop signs, no turning signs.

   (c) Command signs

   Are signs to order certain traffic movements, for example the minimum speed limit sign.

(d) Signposts

Are signs that provide directions or information to drivers and road users about the direction to be taken.

(e) road markings

Is a sign or symbol on the road surface including longitudinal, transverse and other symbols that serve to direct traffic. There are 4 types of road markings, namely:

i. Is a sign parallel to the axis of the road. These markers are connected by transverse lines that are used to limit parking spaces in traffic lanes.

ii. Cross marking

iii. Is a sign that is perpendicular to the axis of the road, like a stop line on a zebra crossing

iv. Oblique markers Is a sign that forms a solid line which is not included in the meaning of longitudinal or transverse markers to unite a road surface area which is not a vehicle traffic lane.

v. Coat of arms Is a sign that contains a certain meaning to state warnings, orders and prohibitions to complement or confirm the intentions conveyed by traffic signs. The form of this symbolic marking is in the form of arrows, triangles or writing which is used to repeat the intent of traffic signs to provide information on road users that are not indicated by signs.

3.7. Symbol mark function

1. State the bus stop
2. Separating traffic flow before approaching the intersection whose symbol is an arrow
3. The yellow zigzag line means no parking
4. Yellow solid line marking on the road frame means that stops / dotted lines outside the road frame are prohibited.

3.8. Road Observer Advice

1. Use complete driving equipment
2. Bring complete vehicle documents

3. Polite, according to the rules on the road
4. Pay attention to the traffic sign symbol

3.9. Prohibition of Observers of Roads Overland routes:

1. Don't be reckless, get drunk
2. Must not drive while playing a communication tool
3. Breaking road markings, overtaking without a lane
4. Rioting on the road

3.10. Land Traffic Ethics

In driving a vehicle on land routes, you should pay attention to ethics, including:

1. Wear a motorcycle helmet
2. Wear a safety belt on a car
3. Obey traffic signs on the road
4. Comply with the maximum speed limit
5. Motorbikes use the left lane
6. Reduce speed when approaching the intersection
7. Provide opportunities for pedestrians on the zebra crossing
8. Not speaking harshly and disrespectfully
9. Helps if there is a traffic accident
10. Reprimand if there are road users who are not praiseworthy
11. Does not damage public facilities such as public telephones, pedestrian bridges, city parks, sidewalks.
12. Giving directions wrong
13. Maintain street lighting

4. Conclusion

Land transportation is a vehicle that is used to assist all kinds of human forces who use the road as a medium for transporting goods or passengers. Almost all activities that people carry out on a daily basis are related to the use of transportation structures. This facility makes it easy for people to move places or goods to a specific destination. Before the development of technology, people used animals as a medium of transportation to transport goods. However, over time the community has used means of transportation driven by machines.Transportation is a process of moving or transporting humans, animals and goods from one place to another by means of transportation. Transportation Tool is a tool or vehicle that is used to facilitate the process of moving or transporting humans, goods and animals from one place to another.

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