

PROCEEDING



International Conference of Computer, Environment, Social Science, Engineering and Technology **(ICEST) 2016**

*“Exploring ASEAN Economic Community Potential through
Research of Computer, Environment, Social Science,
Engineering and Technology”*

**Medan, Indonesia
May 23-25th 2016**



USU Press

Art Design, Publishing & Printing

Gedung F, Pusat Sistem Informasi (PSI) Kampus USU Jl. Universitas No. 9 Medan 20155, Indonesia

Telp. 061-8213737; Fax 061-8213737

usupress.usu.ac.id

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ISBN 979 458 877 6

Perpustakaan Nasional: Katalog Dalam Terbitan (KDT)

International Conference of Computer, Environment, Social Science, Engineering and Technology
/Lusiana Andriani Lubis [et.al]-Medan: USU Press 2016.

xii, 356 p. ; illus.: 29 cm

Bibliografi

ISBN: 979-458-877-6

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THE QUALITY OF PUBLIC TRANSPORTATION SERVICES IN MEDAN

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ABSTRACT

The decline in the performance of urban public transportation has resulted in the increased use of private transportation and thus has caused the inequality between the needs and availability of transportation infrastructure. There is one major problem that causes the system of public transportation service in Medan remains unsatisfied, it is the reluctance of Medan citizen to use public transportation due to the inconvenience of the existing mass transit transportations – the reckless driving of most public transport drivers because they have to achieve the minimum level of fare earnings; the overcrowded passengers exceed the vehicle capacity; the unclear safety standard for passengers. The only possible way to encourage the community to switch the use of personal vehicles to public transport is by improving the minimum service standards. One of the existing legislations, that is, the Regulation of the Transportation Minister of Republic of Indonesia Number PM. 98 Year 2013, on Minimum Service Standards for Passengers in Public Motor Vehicles, is expected to be a reference to enhance the performance of urban public transportation.

Keywords: service, urban public transportation

1. INTRODUCTION

City is a center of activities that serve as a center for services, production, distribution of goods as well as the transportation provider for the surrounding region (hinterland). To carry out its role as a center of activities (both national, regional and local centers), a special urban transportation system which is different from the inter-city transportation system is required. The urban transportation system needed should be capable of accelerating or moving people and/or goods to and from urban areas as well as to enable the activities of the people in the urban areas.

The quality of urban public transportation services in Indonesia is not reliable. This means passengers are less likely to use public transportation to reach their destination safely, timely and efficiently. Passengers are less interested in taking public transportation due to the fact that most urban public transportation in Indonesia do not have a fixed schedule, not aligned well with other modes of transportation, and are prone to traffic accidents and crime.

The public transportation system developed in each city has also got the same trend dilemma, namely the uncontrollable growth on the users of public transportation in small, less-than-12-seat minibuses. A large number of these small capacity buses and their non-disciplined drivers and passengers, have all contributed to the most traffic congestions.

In big cities such as Medan, in general, people prefer to use private vehicles compared to public transportation for various comments and reasons such as discomfort, time inefficiency, overcrowdedness, and many other reasons.

By identifying and understanding the conditions of public transportation service in Medan, this research is expected to offer alternative solutions to

improve the existing transportation system for the sake of the public at large.

2. MATERIALS AND METHODS

LITERATUR REVIEW

Definition of Transportation

In general, transportation can be interpreted as an attempt to transfer or move of something, usually people or goods from one location called the original location to another location which is commonly called the destination location for specific purposes by using certain tools.

According to Miro (2005) Transportation can be interpreted as an attempt to transfer, move, transport, or shift an object from one place to another, which in other places the objects will have been more helpful or useful for certain purposes. Based on the above definition then the elements of the transportation include: (a) cargo that is transported, (b) the availability of vehicle as a means of conveyance, (c) human resources and organizations or management that govern the operations of transportation.

Public Transportation

The existence of the transport system is to meet the needs of economic and social relevance, and to give opportunity to people to improve mobility (Schafer, A., 1998). The primary role of public transportation is to serve the interests of the mobility of people in performing their activities either daily short running activities (urban / rural transportation and inter-city transportation in the province) as well as at any time activity between provinces (inter-city transportation within province and inter-city, inter province). Another aspect of public transportation services is the role to control the traffic, energy saving, and the development of the region.

Wells (1975) stated that the basic purpose of the supply of public transportation is to provide a good, reliable, comfortable, safe, fast and cheap transportation service to the public. In general, for the developing countries condition, public transportation still plays an important role in supporting the movement of people. In an election mode, the community is divided into 2 groups, namely Choice User and Captive User. Choice user is a friendly group of people who have the option of mobility that is between the use of private vehicles or public transportation. While the Captive user is a group of people who only have one choice, that is to use public transportation to mobile, due to limitations possession of physical, financial and legal (Tamin, 2000).

The demand of transportation services for passengers in urban areas are usually served by public transportation. Setijowarno and Frazila (2001) mentioned that the city transportation is the transportation from one place to another in a city area by using the public bus and / or public car that are bound to a fixed and regular route.

Public Transportation Service Quality

According to the National Transportation System (Sistranas) in 2012, the performance of public transportation can be reviewed in terms of their effectiveness and efficiency. As for effectiveness and efficiency are referred to safety, high accessibility, integration, capacity, well organized, smooth and speed operation, easy to reach, on time, convenience, public transportation fares, discipline, safety, low pollution, public load, as well as utilities.

Service quality is a condition or characteristics of public transportation that are expected by the users (Gray, 1979) consisting of the following elements, such as:

- a. Safety, includes safety when using the public transportation (in-vehicles) and when the vehicle is stopped (at-stops);
- b. Convenient, consists of the comfort of passengers' physical, the beauty and the environment. The comfort of passengers' physical includes the convenience in a vehicle or in a rest area, such as the comfortable of seating and a place to stand, easy when entering and exiting the vehicles, a place to put the stuff and others. The beauty includes a clean seating, attractive rest area, while the convenience includes protection of the environment against air and noise pollution;
- c. Easy to reach includes the route distribution that covers the entire region, vehicle capacity, frequency of service and operation schedules, identification of rest area and distribution of information boards;
- d. Reliable, these elements depends on the supply of specialized services provided by the operator, such as the information in the event of changes the departure / arrival scheduled, the guarantee the ease of vehicles replacement and others;

- e. Comparison of costs, this includes guaranteed the cost / fare, minimum mileage, ease of mode changes, reducing the costs of travel for specific groups (children, students and others) as well as the subscription tickets;
- f. Efficiency, which includes the average of speed, minimum waiting time, travel distance that is closed to public transportation stopping area, coordination and replacement of schedules to minimize the passengers' inconvenience, quick and special services.

Minimum Service Standards for the People Transportation in Route

Regulation of the Transportation Minister of the Republic of Indonesia Number PM. 98 Year 2013 about Minimum Service Standards for the People Transportation with Public Vehicle in Route has been introduced since December 30, 2013 as a reference for the Operator of People Transportation in Route in providing services to the Users. The Minimum Service Standards has included the type and quality of service that are entitled to each user of transportation services. The type of services include security, safety, comfortable, affordability, equity and regularity listed in Table 1.

No	Type		
1.	SECURITY	vehicles identity	
		vehicle crew's Identity	
		Lighting	
		Tinted window	
2.	SAFETY	Warning signal lamp	
		The vehicle crew	Standard Operating Procedure (SOP) for vehicle operation
			Competence
	Physical condition		
	Tools	safety equipment	
		Health facility	
		Emergency response information	
Standing passengers handhold Amenities			
Infrastructure	Storage and vehicle maintenance facilities (pool).		
3.	COMFORT	Car Bus	
		haulage	
		Room temperature control facilities	
4.	AFFORDABILITY	Cleanliness facility	
		Fare	
5.	EQUALITY	Priority seating	
		Wheelchair Room	
6.	REGULARITY	information services	
		Time stops at the stop area	
		Headway	
		operational performance	

Table 1. Minimum Service Standards for City Transportation

Regulation of the Transportation Minister of the Republic of Indonesia Number PM. 98 Year 2013 about Minimum Service Standards of People Transportation with Public Vehicles in Route is basically has already been a major step in improving the quality of city public transportation services. However, these regulations need to be disseminated further by preparing the implementation regulation that need to be coupled with the implementation targets and sanctions for operator of city public transportation, so that this regulation has the power in its implementation.

METHODOLOGY

The type of research used in this research is descriptive with qualitative approach. Qualitative research is a type of research findings – the findings are not obtained through statistical procedures or other forms. Furthermore, the qualitative studies have been selected for the stability studies based on the experience of research and the qualitative methods can provide more details about the complex phenomenon that is difficult to express by quantitative methods (Afifudiin and Beni, 2009). This research was conducted in the city of Medan. The data collection techniques applied in this study are observation and documentation.

RESULTS AND DISCUSSION

Public Transportation Services in the City of Medan

Medan as the capital city of North Sumatra is one of the metropolitan cities in Indonesia. Generally, Medan citizens want to use public transportation to travel and perform activities such as going to work, school, market or conduct other social/economic activities. Likewise other major cities in Indonesia, the quality of public transportation services in this city is still below standard. It can be seen from the existing public transportation which has not been operating optimally and securely; notwithstanding the quality of services provided to passengers where privacy, convenience, safety, punctuality should be in accordance with the fares they pay.

To cope with the transportation movement, Medan citizens prefer using a mode of personal transportation to public transportation. Most of the people use public transport as a mode of transport. But it is as if forced to do because no other options are offered, since public transportation is still relatively cheap despite of the low standard of security and convenience.

Public transportation in Medan is dominated by city transportation (public transportation) with various problems, such as the physical condition of the public transportation that is not entirely feasible yet it is still operating. Not only a very limited capacity but the quality of service is low. Passengers are often overcrowded and packed so it is possible to get an accident, and it increases the sense of insecure and discomfort.

The type of public transportation generally use in Medan is called “*Mobil Penumpang Umum (MPU)*”, it is a sort of public passenger car with small capacity (8-12 passengers). Whereas the proper public transportation should be able to serve the people of Medan optimally. In view of Medan population in 2014 which had reached 2,191,140 million inhabitants (Medan in Figures, 2015), mass transit system should be duly built. It is recommended that the use of MPU be reduced by changing the mode of a small capacity bus to a larger capacity bus. When the tendency of MPU is growing, it would cause traffic jam on various roads.

A large number of small capacity public transportation is coupled with the poor behavior and discipline of the drivers and a poor discipline of users of other vehicles such as motorcycles and motorized tricycles influence the quality of the transportation service system in Medan. The crew of the city public transportation often stop “*ngetem*” (stop with quite a long time to wait for passengers), romping, stuffing the bus with an overload passenger, riding and dropping the passengers haphazardly and not at the bus stop and the terminal. Public transportation drivers sometimes even stop suddenly in order to get the passengers, as well as other behaviors that indicate a reckless nature. It is certainly caused uncomfortable condition to use public transportation because those reckless driving behaviors endanger the passengers and other road users, especially the ones moving behind MPU. The public transportation crew's reckless driving behaviors cause the city public transportation services unreliable.

The low quality of city transportation services is also proven by the departure schedules that are not on time, safety and security facility of passengers which do not meet the standards, the lack of regularity, as well as a perceived lack of comfort in the city transportation, such as jostling, the weather was hot with no air conditioning and so on in which those make passengers feel less comfortable.

Feeling safe was not optimally can be felt by the passengers. In addition the incidence of passengers who fell when dropped from the vehicle because the vehicle did not stop properly, has been an evidence that cannot be denied. Besides, the criminal offense of pickpocketing or other criminal acts that sometimes occurs in the public city transportation has also make the citizens feel unsafe to use the city public transportation.

The existing of online transportation such as “*Go Jek*” in Medan recently showed that the demand of public transportation is still high. While nowadays the large capacity public transportation in Medan is still limited. One of the large capacity public transportation is Bus Rapid Transit (BRT) Trans Mebidang (Medan-Binjai-Deli Serdang), it has been operating since November 2015. However, this bus mostly serves the transportation intercity, namely Medan-Binjai and Medan-Lubuk Pakam, so it does not really serve the passengers intern city.

The description of public transportation phenomena in Medan showed that the public transportation system is not working as it should be in serving the public interest, therefore most people tend to choose private vehicles as a mode of transportation in the city as it is more convenient and effective in many conditions.

Based on the data from Dirlantas Poldasu, the number of vehicles in Medan in 2014 has reached 5,531,777 units, motorcycles dominate as much as 86.29 percent, cars 7.91 percent, cargo cars 4.50 percent and buses 1.30 percent. The reason of more quickly and efficiently, coupled with the ease of ownership, public transportation users are switching to motorcycles. This has caused the number of users of public transportation are decreasing. The imbalance needs and the availability of public transportation has caused the drivers of city public transport try to get more passengers with any effort, they even break the traffic rules, such as going through the pedestrian, driving out of track, passing the traffic light and so on. This phenomena reduces the passengers' comfort and safety.

The data shows that private vehicles still dominate and this means public transportation is not preferable. Thus, it is required to innovate mass public transportation services that are not only reliable and qualified, but also safe, comfortable and affordable. If there is no immediate solutions, then Medan will face the traffic jam problem which might be as severe as the one in Jakarta. This condition will not benefit to all form of activities for Medan citizens.

Suggested Solutions on Public Transportation Problems

To solve the transportation problem, particularly to overcome the issues of city public transportation services in Medan, there are some alternatives to be considered as follows:

1. Improvement of city public transportation services

With predominantly city transportation (public transportation) as public transport in the city of Medan, it is necessary to control the management and operation of public transportation, which includes:

- a. Improve discipline of the driver
Compliance with traffic rules, such as: do not "ngetem", ride and drop off passengers anywhere and anytime; and performing audits of medical check up for bus drivers plus drug tests.
- b. Rejuvenate public transportation fleet to let users more comfortable
- c. the availability of public transportation with proper physical conditions; Doing inspection of the physical condition of the bus and the completeness of safety checking,

- d. availability of proper quality of service; and fixed public transport travel schedule, organized and in order
- e. availability of trajectory license in order; compliance with the order of public transportation; and evaluate dues to various parties;
- f. minimize conflict with the public transportation route across borders and local transportation such as taxis;
- g. Businesses need to make public transport more attractive or known as the Public Transport Policies such as timeliness and certainty of getting a vehicle, comfort and security, the use of air conditioning, clear information systems and priority for buses (bus priority).

2. Operate the Right Means of Public Transport Capacity

Considering the dominance of city transportation (public transportation) in Medan, it is required to do a thorough study by taking into account the problems that already exist or may arise, about the use of public transport with greater capacity, such as the use of medium capacity buses and large capacity buses on certain routes. Substitution of public transportation from small capacity buses to medium and large capacity buses should consider the following cases:

- a. route selection that use small or medium bus transportation modes;
- b. the number of medium and large buses are being provided as necessary, in good physical condition;
- c. availability of the number of medium and large bus stops and safe and comfortable condition;
- d. availability of feeder to access the bus stop for medium and large bus;
- e. availability of support facilities, such as the safe and comfortable terminal;
- f. availability of access to buy medium or large buses tickets and cheap ticket easily;
- g. availability of proper management and operations from the medium and large buses;
- h. implementation of the replacement gradually by involving all interested parties;
- i. Empower Trans Mebidang optimally;
- j. seek waterway (if possible), in addition to roadway and railway;

Mass Rapid Transit can accommodate more passengers and travel time is fast so it will be a promising future for the community. The presence of fast mass public transportation is also expected to reduce existing traffic jam on the highway.

3. Formulating The City Transportation Policy

Improvement of city public transportation services in order to attract people to reduce the use of

private transportation will not be very effective if it is carried out only from the management of the public transportation itself, it must be accompanied by a comprehensive policy of other fields, such as the construction of infrastructure, in which one of the policy is widening roads. Government should notice that this policy might not be preferable as it will attract more private transport users.

The improvement of city public transportation services need to be done by issuing a comprehensive policy which may include:

a. Restrictions on the purchase and use of private vehicles policy.

Traffic jams that occur in Medan is caused by the large amount of vehicles in the road. It is hoped that the local government is able to coordinate with the central government to stop the cheap motorcycle or car programs. There should be coordination and commitment coupled with the existing regulations to tighten the ownership of vehicles.

b. The Access Limitation to private vehicles Policy

The developments of the city transportation in major cities showed that the growth of motor vehicles is quite high. The use of private transport number is quite high, in which it is also the main cause of traffic jams. Therefore, there should be Traffic Restraint to reduce the use of private vehicles. A large amount of motorcycle will cause more chaos in the streets and traffic jams. To reduce traffic density, it is recommend that motorcycle be prohibited to go through city streets at certain hours. These rules are enforced in Jakarta, banning motorcycles through the streets of MH Thamrin until Merdeka Barat. But in Medan, there is still no motor car free area.

Besides, it is also required to do the application of Personal Vehicle Traffic Restriction that is stated in the Director General of Land Transportation No.: AJ 403/1/6 Year 1991, regarding Basic Principles of Personal Vehicle Traffic Restriction. The improvement of city public transportation sector services had to be done so that people will be able to assess and will transform the journey by using more city public transportation.

c. Traffic management implementation policy

Another effort in reducing traffic jam is the "clear ways" system, it is a traffic system in the big cities that prohibit large vehicles such as trucks to perform the loading and unloading their cargo at a number of roads that are classified as congested road at certain hours. Clear ways system can also be applied as no parking for motor vehicles (especially cars) on the number of roads that have heavy traffic. During peak hours, a number of vehicles must be completely clean from the vehicles which stop for unloading or parking. If there are vehicles

parked at the peak hour, the rest of the road for traffic becomes narrower, and this will disturb the traffic movement. The clear way system could also be extended by prohibiting street vendors or overflowed market that uses up to the road.

The government, in this case, the Department of Transportation in Medan can create a program such as the even and odd numbers, and to apply pay road in a specific area in order to limit the private cars entering the city. The Medan Transportation Department can also optimize the existing transportation facility and improve the management of existing DAMRI so that the city bus is attracting to the public again.

CONCLUSION

Various number of city transportation problems cannot be solved by one party or any party such as government only. Government may have been the key role in solving city transportation problems, but the society, business-men, transportation entrepreneurs and the road users should take part in giving significant contribution to solve the problems of city transportation.

Considering Medan city traffic conditions, then it is recommend that the mass transit system construction be built and it should be coupled with optimal service system to avoid the use of private vehicles.

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