

Bus Operating Characteristics in Medium Size City (Case Study: Jogjakarta, Lampung and Palembang)

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A major ADB study completed in 2011 predicts the result of ongoing urbanization and population growth of Jogjakarta within the city's limited geographical area is driving the urban footprint expansion beyond the city's boundaries. The same study in Palembang, capital of south Sumatera province, conclude the rapidly increasing population will require more careful consideration of the pattern of future land use and integrated of urban transportation system.

This research focuses on identifying the characteristic of bus operation in three medium-size cities in Indonesia such as Jogjakarta, Lampung and Palembang, in conjunction with the implementation of the urban bus transit system in the last five years. Each urban bus transit system diagnosed refers to current operational data so that problems related to service quality and efficient management aspects can be defined in a simple and clear.

Referring to result of the analysis, we can conclude the service quality of the three city transits are far from successful in term of ridership level except trans Jogja which is slightly above the minimum limit. The next unfavorable effects not inevitable: the achievement of kilometer per employee as the main parameter of efficiency of management is very small, less than 50% of the minimum value required. Based on the description of the two main aspects of operation of urban public transport, i.e. service quality and efficient management, the transit operator in three cities are not able to make major investments in buses or bus systems.

Key Words : *bus operation, medium-size cities, service quality, efficient management*

1. INTRODUCTION

Most of medium size cities in Indonesia such as Jogjakarta, Bandar Lampung and Palembang have experienced rapid economic and transport growth in the past decade. Car ownership continues to grow despite the economic crisis of 1997. Traffic congestion and associated problems are now major concerns of the citizens and local governments. A major ADB study completed in 2011 predicts the result of ongoing urbanization and population growth of Jogjakarta within the city's limited geographical area is driving the urban footprint expansion beyond the city's boundaries. From a transport perspective, this situation highlights the classic hallmarks of increased number and distance commuter trips, and the

inevitable congestion of urban arterials within the city.

The same study in Palembang, capital of south Sumatera province, conclude the rapidly increasing population will require more careful consideration of the pattern of future land use and integrated of urban transportation system. However, because of uncertainty of land use planning in most of cities in developing country, a process-driven is recommended not plan-driven, in which to develop an advance urban public transport. Growth in number of parking spaces and motorcycle effect on the deteriorating environmental condition in several places including city center. Causative factors above have tended to increase the number of vehicles that will obstruct the concept of sustainable urban public transport.

On the other hand the implementation of autonomy since 1999 had an impact on the management of urban public transport at the local government level. This research focuses on identifying the characteristic of bus operation in three medium-size cities in Indonesia such as Jogjakarta, Lampung and Palembang, in conjunction with the implementation of the urban bus transit system in the last five years. In practice these three cities to apply a different approach to competition for urban bus transit system. Nobody knows how different approach can occur and applicable except for autonomy which entitles each local government to organize the local transport system. Recent data in the three cities are used to study and analyze the two main aspects, namely service and management efficiency. The main parameters of each of these aspects are used as a basis to draw conclusions.

2. RESEARCH METHODOLOGY

In many developing cities, most of buses are operated by independent bus companies or have been partially privatized. In some cities private companies have grown up to fill vacuums created by inadequate service of the public bus systems. Often many small, independent bus providers survive on a day-to-day basis. Some consolidation of bus service is probably needed in such cities to improve service and increase purchasing power for investment in new bus systems and technologies.

A number of local governments such as Jogjakarta, Lampung and Palembang try to improve the situation, when the issue of urban public transport began to be increasingly concerned. They have the same perception: city bus should strive to be the main mode of travel within the city. Based on field survey and interviews, the two cities such as Jogjakarta and Palembang allocate local budgets to provide support facilities along route, including adequate subsidies to support the operation of city transit. While the city of Bandar Lampung more passive and even hands over bus operation entirely to the private company.

Actually, there are a number of different approaches to competition for bus systems. In its recent transport review, the World Bank [2001] provides a spectrum of possible regulatory arrangements, ranging from pure competition to complete government control and operation of the system. Some of the different approaches are summarized below:

(a) Gross Cost Service Contracting involves contracting with a private bus operator for specified services at a fixed price, or one based on one or more

parameters of service such as vehicle kilometers. The contract is usually awarded through competitive tendering. The operator must pass through all fare revenues, or revenues can be collected separately. This approach removes most of the problems associated with excessive competition, but oversight is necessary to ensure that the operator provides the specified service. Jogjakarta local government select gross cost service as a basis for the implementation of trans Jogja urban bus with single operator. JTT as operator operate amount 54 buses and has 314 staff in whole level. Fares collected by regulator at bus stop before the passengers boarded the bus. Regulator pay the operator based on the achievement of kilometer traveled. After nearly five years of operation, trans Jogja urban bus still continue to be subsidized. Typically, the local parliament must give approval before the subsidy is set.

(b) Net Cost Service Contracting is similar in some respects to gross cost contracting, but requires the operator to derive revenues from fares. This increases operator risk since the revenues may vary unpredictably, and may make it difficult to coordinate service between different providers or to have a common fare system. However, it avoids the need for complex fare collection systems and security arrangements. Trans Musi in Palembang adopts net cost service since the transit system operated in early 2010. Trans Musi noted as the most aggressive urban transit system in Indonesia medium size city at this time. At the beginning of operation, trans Musi only consists of 25 fleets to serve two corridors, but three years later the number had grown to a fleet of 120 buses with 8 corridors underserved. Currently the number of passengers was increased to 22,000 people per day, from only 8,000 people per day at the beginning of the trans Musi operated. To run bus operation, operator employ as many as 800 employees for all levels.

(c) Franchising involves giving the operator nearly full responsibility for managing the operation of the bus system, within agreed parameters. Operational assets may still be owned by the city authority, but the operator typically handles all procurement and maintenance and is more involved in overall management of the system. Depending on fare and ridership levels, it may be difficult for franchises to make a profit and some subsidization may be needed.

(d) Concession takes the next step beyond franchising and entails an exclusive right to provide a service in a designated area, usually without any payment in either direction between the city author-

ity and the operator. Contracts are typically long term in order to provide the operator time and incentive to invest in the system and build up business. Maximum fares and minimum levels of service may be required by the authority. Concession selected by the local government in conjunction with the launched trans Bandar Lampung in late 2011. Private company that acts as the operator is responsible for providing the fleet, maintenance and hire employees. Operator operate as many as 33 buses and employs 90 staff members at all levels. Support facilities are the responsibility of local government, however, until nearly two years later not adequately available in each route. What happens then is trans Bandar Lampung operate like para-transit, stop in any place to pick-up passenger, so it does not appeal to the public to use. In terms of service quality and efficient management, trans Bandar Lampung is at the lowest level of the three cities where the research was done.

3. FINDINGS AND DISCUSSION

A transit agency, whether municipally-owned or privatized, confronts many of the same “bottom-line” questions as any business: will revenues exceed costs this year? Are profits sufficient for new investment? Will high front-end investments yield payoffs in future years?

One thing is clear: increasing bus speeds is very important for increasing revenues, balancing the books and being able to afford better buses. Slow bus speeds reduce the total kilometers that a bus can travel each day, and therefore the number of passengers that board –in turn lowering the revenues that the bus generates. Faster moving buses, with shorter waiting times and more reliable service, are the keys to increasing ridership. In cities with bad traffic and low average speed for all vehicles, getting buses moving can give them a clear edge over other forms of travel. Unfortunately, the facts on field based survey showed different results. In addition to the lack of attention to public transport, people look not so enthusiastic about using city transits, especially the middle class group. Furthermore, the number of riders tends to be constant. On the other hand, most of bus operators in developing countries like Indonesia are over-staffed, particularly in the administrative and management categories. Based on the results of the field survey, Figure 1 shows the daily number of passenger in each city, while Figure 2 shows the kilometers per employee per day.

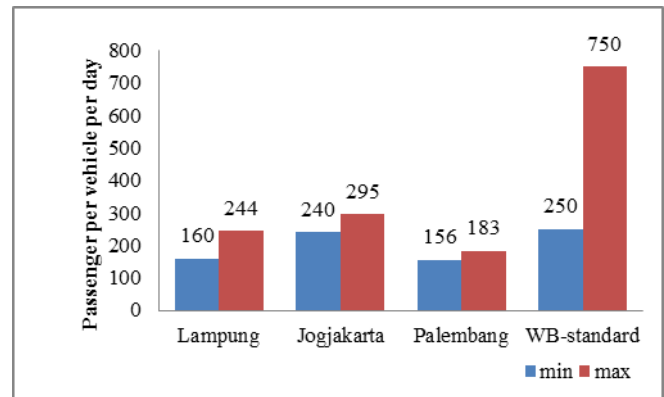


Fig 1 Observed passenger per vehicle per day

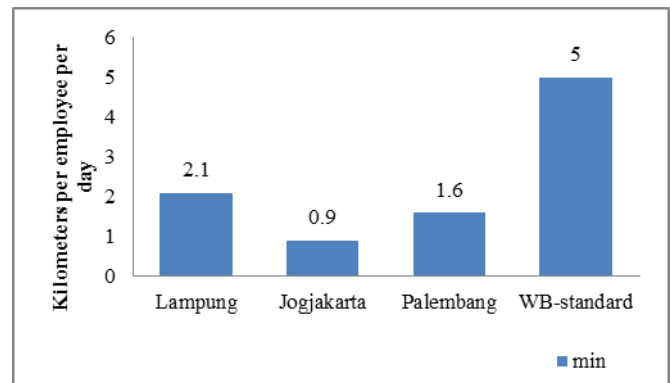


Fig 2 Observed kilometers per employee per day

Referring to Figure 1, we can conclude the service quality of city transit are far from successful in term of ridership level except trans Jogja which is slightly above the minimum limit. Unfavorable effect seen clearly in Figure 2 where the achievement of kilometer per employee is very small, less than 50% of the minimum value required. Based on the description of the two main parameters, the operators of city transit in three cities are not able to make major investments in buses or bus systems.

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