

IMPROVING THE EFFICIENCY AND ADEQUACY OF URBAN ROAD-PASSENGER TRANSPORT

Jusuf J. S. Pah (yuserpbdaniel@yahoo.co.id)¹⁾

ABSTRACT

This study offered ways to improve the efficiency and adequacy of urban public transport in Kupang, taking as the background the viewpoint that urban transport should concern not only middle and high income people but urban poor as well. It focused on three principle modes of public transport in the city, two of which are formal: city bus, and bemo, and the remaining one is informal/paratransit locally known as 'ojek'. It took urban transport strategic review published recently by the World Bank as the quarry form which solutions for efficiency and adequacy the city's passenger-transport were drawn and developed as to suit specific demand of the same. It concluded that to improve the service of public transport in the city, 'competition-for-the-market' should be introduced into the market of its urban transport form of for-the-market competition recommended are route-concession. It stressed also however that prior to it state-owned motor companies should be privatized, and their capacity to engage in an open competition should be made better. As for bemo, service-contract should be introduced into the relation between the owner and the operators, whereas paratransit should be recognized and regarded as part of the whole urban public transportation system.

Key-Words: Concession; Formal-Transport; For-the-Market Competition; Informal-Transport; In-the-Market Competition; Paratransit; Public-Transport; Urban-Public-Transport;

Rapid urbanization in major cities in Indonesia has a considerably shifted public transport from being mode of transport that contain middle and high income people to that which now should contain urban poor as well, due to the migration of rural poor into cities. In response to these, urban public transport should not be viewed dividedly as only for the poor or for the higher income people however, but as mode of urban transport for all income groups. This in turns calls for provision of an improved passenger transport that concerns not only with keeping cost down but also with providing a flexible frame work, within which the less poor as well as the poor can use with confidence and comfort (World Bank, 2002).

While demand for efficient urban transport increases, the efficiency and adequacy of public transport declines. This decline in turn has caused adverse consequences. As adequate public transport is not available, the rich will use private car, the poor will shift to motorcycles, and to inexpensive car. Small-vehicle paratransits appears. Number of vehicles on road increases and traffic congestions, air pollution and less coordination of urban transport will result as the consequences. Given the deterring effect that the declining in efficiency and adequacy of passenger transport may have on urban environment, the critical issue is how to achieve and establish frame work that will yield efficient and adequate urban road passenger transport.

^{*1)} *Department of Civil Engineering Faculty of Science and Engineering Nusa Cendana University* 115

This study will therefore aim at presenting a framework that will achieve efficient and adequate urban passenger transport. It will limit its scope in the city of Kupang one of developing provincial cities in Indonesia.

The World Bank (WB) has joined issue on presenting frame work to increase efficiency of urban passenger transport as reflected in its publication (World Bank, 2002).The framework proposed by that document will be treated as the main reference throughout this study to evaluate urban passenger transport in Kupang.

Road Passenger Transport in Kupang, Their Performances and Efficiency

Formal passenger transport in Kupang consists of urban bus and bemo of which the dominant one is bemo that comprises approximately 80% of formal passenger transport. In addition, it should be noted here that in recent years there has an explosive growth of 'ojek', an informal public transport that utilizes motorcycle, known technically as paratransits.

Urban Bus

Most of urban bus in Kupang, is operated by DAMRI a state-owned transportation board under the Department of Communication (DEPHUB). DAMRI is financed for its operation by a share in national budget. Transport charge it applies on users, finances the operator only indirectly, as it goes first to national treasury and will come later as budget share or subsidy.

As predicted by WB, enjoying a share from national budget and being indirectly financed by tariff has lead DAMRI operates in less profit oriented manner. This, in combination with being a regulated monopoly, has undoubtedly decline the efficiency and performance level of this mode of transport, as evident in the followings.

1. **Less Reliability;** While operates in fixed routes, the operation of the bus is totally unscheduled and hence unreliable to users. Daily operation period of the bus is not in accordance with transport demand but tend to be restricted to working time of state-owned company.
2. **Inconvenience;** Having less than demanded number of bus operates in certain route have caused over-crowding of passengers to the extent that most will have to be standing to his/her destination. This, occur almost regularly at peak hours.
3. **Air Pollution;** Most of the vehicles operated, are of diesel-engines and are relatively old, cause considerably higher air (into the environment) pollution.

Despite those negative consequences, being less-profit oriented DAMRI develops some positives of less antisocial on-the-road behaviors. Antisocial on-the-road behaviors such as "hanging back", "blocking", "racing" and "turning-back" are seldom observed in connection with its services. Moreover, it exhibits relatively no "dangerous-on-the-road" behavior. The later may be attributed as the result of the company being less-profit oriented.

Bemo

Bemo is the dominant mode of urban public transport in Kupang. It is a minibus of 12 to 14 seats, with fixed route but without fixed schedule. Due to ease in purchasing a minibus

by soft loan credit and being a profit promising income generator, numbers of bemo grows significantly in Kupang, makes the supply capacity higher than that of demand.

Unlike DAMRI, bemos are privately owned. Two operators (the driver and money collector) are employed by the owner for each unit of bemo. These operators are required to pay daily fee to the owner, and will revenue for themselves from the surplus over that fee.

Routes are licensed by public authority to private owners in a competitive market through a price-contract that also contains quality licensing as minimum condition for entry, and vehicle specification. Transport fare is determined by public authority, but there is no restriction on numbers of vehicles that can be put to operation.

Compare to bus sector, bemo has more advantages in service performance than that of bus (Joewono, 2005). As implied by WB, being private provider -as opposed to regulated monopoly- bemo is more responsive to users demand than that of bus, as made evident by the followings:

1. **More Reliability and Availability;** Everyday except Sunday during Kupang activity hour (6 am to 8 pm), bemo is available at every route almost every 5 to 10 minutes.
2. **More Convenience;** Greater numbers of bemo has made it “being captive” to users in respect to service convenience. Users have more freedom to choose one which is more convenient to them. As the result, bemo is seldom loaded above its capacity. This mechanism has also led the owner to invest more on vehicle maintenance to attain better service performance and convenience that will be acceptable to users.

Besides advantages, some dangerous-on-the-road and anti-social behaviors have significantly been observed in connection with bemos, mainly as the result of the rush of operator to reach daily earnings above that to pay to the owner.

Ojek

Recently, due to available soft loan credit for motorcycle, and excess supply of labour, there has been an explosive growth of ojek, an informal motorcycle passenger transport services outside the regular system. This kind of informal transport mode is technically known as paratransit.

Being outside the regular system this paratransit has created some notable adverse consequences as dangerous-on-the-road behavior, antisocial behavior against formal transport, traffic congestion, and decline of passenger safety due to dangerous-on-the-road behavior and uncontrolled suitability and security of operating vehicles.

Despite disadvantage they cause, paratransit has provided employment for the poor. Being free from tax, and using less operational cost vehicle, they offer service at comparable cheaper tariff than that offered by formal transport. Paratransit is therefore a service provided by the poor and for the poor, and as was brought forward in the foregoing, this should be seriously considered in dealing with this mode of transport.

Moreover, they serve routes where formal supply is unavailable, infrequent or slower. While formal transport mode can not reach a considerable number of city's section due to narrow or poorly paved access roads, this paratransit, since utilizes vehicle of considerable small size (motorcycle), can serve and are available in those sections.

Furthermore, they are more on demand-responsive routes compare to formal transport modes, and are more available on demand. Most, if not all, of the drivers have cellular phone whose numbers have been published to prospective passengers, hence most of them are available on call of the passenger.

Framework to Improve the Efficiency and Adequacy of Road Passenger Transport in Kupang

So far we have concentrated on the service performance and decline in efficiency of passenger transport in Kupang. We now turn to apply the analysis presented by WB for improving efficiency and adequacy of passenger transport. In this section therefore, correspondence of the analysis of WB with transport situation in Kupang will be discussed and framework for the efficiency and adequacy will be developed.

Urban Bus

It is evident from the preceding section, and as presented by WB that low performance and low efficiency of urban bus are mainly due to the absence of competition both “for the market” and “in the market”. Being a single provider, DAMRI experiences considerably no in-the-market competition, and being indirectly financed by transport tariff, as it enjoys shares from national budget, DAMRI exhibits lack of motivation to provide better service and lack of on-demand-responsiveness.

It follows henceforth, as is asserted in WB, that in order to attain better performance and higher efficiency, competition should be introduced at both for-the-market and in-the-market, in the procurement and in the operation of DAMRI respectively. In relation to it, following measures should be taken.

1. **Privatization and Commercialization;** As a pre-condition for competition, DAMRI should be privatized from being a state-owned company to a private competitor, and subjects to commercial constraints as do other private companies.
2. **Competition in Procurement;** Instead of granting the right for bus provision through regulation, competitive tender should be introduced in the procurement process in which DAMRI together with other eligible motor companies compete for attaining the right for service.

Further study should be made to determine which ways of competition offered by WB is the most suitable for urban bus service in Kupang, whether Gross Cost Service Contracting, Net Cost Service Contracting, Management Contracting, Franchising, or Concession.

The author is in the opinion that most suitable one presently is Concession, and there are three reasons for choosing this option. First, owing to the fact that presently both public authority and private companies lack administrative-business skill, concession is one among those offered that requires less administrative-business skill to perform. Second, owing to the fact that public authority in Kupang is in short of financial support, concession is the one in which public authority is not required to pay the concessionaire in granting the right. Third, concession is the way thorough which public authority still maintains rights to attach condition such as service requirements, fares etc, as these are needed to ensure acceptability and affordability of service by both the less-poor as well as the poor users.

Some conditions are required prior to the application of privatization and competitive procurement to ensure effective competition and operation between private suppliers:

1. Public authority in charge of urban transport management should be restructured into a system which is conducive and capable to carry out a competitive procurement, maintenance and coordination of a competitive urban transport environment;
2. DAMRI itself should be restructured and institutionally reinforced to be capable to subject to strong external for-market competition and in-the-market competition, and
3. Private companies that will compete for and in the market should be reinforced for business skill and capability to carrying out the bus operation internally and subject to competition externally.

Bemo

It can be noticed from the foregoing that, at the sector of bemo some degree of market competition have been introduced. As asserted by WB, this has resulted in more efficient service than that of the bus. However, some antisocial and dangerous-on-the-road behaviors associated with the this sector have been observed. In respect to convenience and safety of passengers, these behaviors are significantly adverse hand have to be taken into consideration. As can be logically inferred, these behavior are mainly caused by rushing for surplus of daily income by the operators.

Measures shall have to be taken to have these drawbacks removed. Document of WB under study does not explicitly refer to this situation. The author can confidently assert that these drawbacks can be removed by introducing competition in the procurement of bemo operator by the bemo owner, and by having the relation between operator and owner being established in a short duration service contract with clear specification to prevent dangerous-on-the-road and anti-social behaviors from happening.

It should be anticipated also that in near future present surplus of supply can possibly be overcome by the demand as the city grows in population. As the result, in-market competition it presently has will disappear and so will the convenience it has produced. Out of those ways of for-market competition offered by WB, the author is in the opinion that giving concession of service and route through a price-contract is the suitable way for bemo sector, partly based on the same consideration as that for the bus, and partly because of the present positive results it has produced. Also by giving only route and service in concession, larger room is provided for participation of more private enterprises as compare to those offered by other ways, thereby creating more income generator for middle and low income urban. In the coming future, however, when the city has grown larger, other ways of competition such as area franchising, management contracting or service contracting should be considered.

Ojek

As has been described in the foregoing, this kind of informal-paratransit transport has disadvantages on one hand while favorable advantages and important merits on the other, especially in its role as source of employment for urban poor. At least on that basis, WB has this paratransit in favorable view (World Bank, 2002). Attempt to eliminate it form urban passenger transport therefore, is certainly not a good solution.

Out of those ways suggested by WB (World Bank, 2002), following approaches can be adopted to overcome the disadvantage of this field.

1. Paratransit should be recognized as component of overall urban transport and ways should be found to mobilize the potential of paratransit through legalizing association, and to give opportunity to participate in competitive process.
2. Quality, safety, insurance and environmental standard together with tax should be established and enforced, and finally
3. public authority should plan a dynamic system that will methodically and gradually allow transition of paratransit from an informal status to a more formal stand.

Conclusion

1. This paper supports WB recommendation of introducing competition into the market of formal passenger transport in Kupang to improve the efficiency and performance of its service.
2. Best form of competition for the market recommended is route concession, due to its least requirement of financial and administrative-business skill, and due to opportunity it gives to public authority to control service requirements.
3. However, prior to introducing competition, DAMRI should be privatized and reconstructed for more capability in competitive business, and in line with WB, public authority in charge of urban transport, and private transport company should for the same reason, be reconstructed and reinforced.
4. This paper recommends the introducing of competition into the market of Bemo operator, and the service contract into the relation between the owner and the Bemo operator, to suppress the antisocial and dangerous-on-the-road behavior which is due to rushing for daily revenue.
5. In line with WB, this paper recommends the recognition of paratransit's role in urban transport and accordingly recommends public authority to find ways to mobilize their potential, ensuring and enforcing quality, safety, insurance and environmental standard, and enforcing tax.

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List of Abbreviations

DEPHUB	<i>Departemen Perhubungan.</i>
DAMRI	<i>Dinas Angkutan Motor Republik Indonesia.</i>

Reference

Joewono, T. B. (2005), The Characteristic of Paratransit and Non-Motorized Transport in Bandung, Indonesia, *Journal of the East Asia Society for Transportation Studies*, Vol. 6, pp. 202-272, EASTS, Tokyo. (Available at http://www.easts.info/online/journal_06/262.pdf).

World Bank. (2002), *Cities on the Move a World Bank Urban Transport Strategic Review.*, p.93-108., The World Bank, Washington DC.