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THE NEGOTIATION OF KEY ACTORS TOWARDS PETE-PETE (MINIBUS PUBLIC TRANSPORT) INTEGRATION IN MAMMINASATA BRT

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ABSTRAK

Trans Mamminasata BRT in South Sulawesi is one of the national priority transportation program to solve traffic congestion in the region. The BRT operation will have a challenge since it is impacted the existing minibus public transport (Pete-pete). Many drivers have done several demonstrations against the BRT operation. Therefore, the negotiation strategy is need to be designed and implemented to realize this BRT program as all stakeholder's goals. The objective of this study that used literature review method is to find out the most appropriate scheme options for Pete-pete's actors (drivers and owners) to be integrated with Trans Mamminasata BRT system based on lessons learned from previous cases that occurred in DKI Jakarta Province and Semarang City through a negotiation process between dispute parties. For further studies, we suggest doing research to gain an existing players perspective on the BRT transition and testing the transition package as part of the negotiation.

Key words: BRT, negotiation, transportation, bus reform, Mamminasata

I. INTRODUCTION

Urban transportation has a strategic role in shaping urban civilization. Urban areas worldwide are rapidly expanding and so is the urban population. Therefore, transportation management has become a major part of urban planning and development. Urban planning majorly impacts how much a city supports business growth, and of which transportation management has a key role to play. Transportation affects expenditure and revenues per capita for most cities and a country's GDP.

Beside the economic impact, transportation, especially urban transport, is also a big contributor for CO2 emission in the world with the amount of 16,2% in 2016 (ourworldindata.org). This situation is mostly due to traffic congestion in metropolis cities in the world. In order to achieve Sustainable Development Goals (SDGs), which is one of the goals, all countries have committed to do a lot of efforts together managing this situation (sdgs.un.org).

Indonesia who was ranked 6th as the CO2 emitter in 2017 (world101.cfr.org) also has an ambitious target of reducing CO2 emission. They want to reduce GHG emission by 29% with domestic efforts or 41% with international assistance. This target is a short-term milestone to achieve net zero emission in 2060 (jakartaglobe.id). One of the strategies to achieve this goal is

reducing traffic congestion in metropolis or agglomeration cities in Indonesia.

Traffic is a problem that is most often encountered in big cities in Indonesia. This problem usually arises in cities with a population of more than 2 million people such as Jakarta, Surabaya, Medan, Bandung, Makassar and Yogyakarta. According to the Ministry of Transportation (Kemenhub) there are five major problems currently entangling the Indonesian land transportation sector such as first, transportation is not efficient and effective, which often occurs in disadvantaged, outermost and innermost areas (3T); second, the selfishness of drivers or users of private or public transportation that often occurs on the highway; third, the road users ignore safety aspects that have the potential to result in traffic accidents; fourth, mass transportation is not evenly distributed, which is a problem that often occurs in the islands; fifth, the high use of private vehicles, which is caused by the lack of integration between the public transportation sectors (liputan6.com, 2020).

One of the agglomeration cities, Mamminasata Agglomeration Cities (Makassar, Maros, Sungguminasa, and Takalar) as stipulated in Presidential Decree No. 55 year 2011 is also struggling with traffic congestion issues. Based on the table below, Mamminasata is in the 5th rank of congested cities in Indonesia.

Table 1.1 Traffic Congestion in 6 (six) Agglomeration Cities

No	Agglomeration Cities	Core City	Year	Population in Core City	Average Speed in City Center
1	Jabodetabek	Jakarta	2014	10.075.300	10-20 kph
2	Bandung Raya	Bandung	2015	2.378.627	14,3 kph
3	Gerbang Kertasusilo	Surabaya	2015	2.978.543	21 kph
4	Mebidangro	Medan	2015	2.210.624	23,4 kph
5	Mammanisata	Makassar	2014	1.652.305	24,06 kph
6	Sarbagita	Denpasar	2015	880.600	N/A

(Source: Laporan Review Kesiapan PJPK, Bappenas, 2016)

Considering Makassar as the main city of Mamminasata with a population density that increases every year (as shown in the table below) and traffic congestion is quite high, an integrated mass transportation system, such as Bus Rapid Transit, is needed. Several types of public transportation modes available in Makassar are of a minibus called pete-pete (angkot), becak (pedicabs), taxi, and BRT Trans Mamminasata. Makassar does not have any large buses operating regularly on urban bus routes.

Table 1.2 Population Number of Makassar City 2019 and 2020

	2020	**2019**
Male	709,060	755,968
Female	714,817	770,709
Total	1,423,877	1,526,677

Kecamatan	2020 Jumlah Penduduk		2019 Jumlah Penduduk	
	Laki laki	Perempuan	Laki laki	Perempuan
Mariso	28816	28610	30609	29890
Mamajang	27514	28535	30129	31323
Tamalate	90393	90431	102128	103413
Rappocini	70779	73808	82162	87959
Makassar	40657	41410	42553	42962
Ujung Pandang	11893	12633	13716	15338
Wajo	14970	15002	15470	15983
Bontoala	27284	27712	27886	29311
Ujung Tanah	17914	17875	18037	17497
Sangkarang	7019	7106	7239	7292
Tallo	73068	71909	70303	70027
Panakukkang	69663	69927	73971	75693
Manggala	73230	73494	75094	74393
Biringkanaya	104472	104576	110138	110318
Tamalanrea	51388	51789	56533	59310
Kota Makassar	709060	714817	755968	770709

(Source: https://makassarkota.bps.go.id/indicator/12/35/1/jumlah-penduduk.html)

In 2019, there were only 2500 of 4113 vehicles of Pete-pete (minibus) under 14 entities that served 17 routes in Makassar City (SIGANDA). The average passengers of Pete-pete are only 3-4 passengers compared to its capacity 10 passengers (Aslam Jumain et.al, 2021). Competition from the increasing number of private vehicles, especially motorcycles, and on-line transports have reduced the passengers of Pete-pete. This condition has an impact on the welfare of Pete-pete drivers and owners. Pete-pete as stand alone cannot serve the mobility needs of the people and meet one of the sustainability cities principles which is implementing transit improvement (mass transportation). Others, people that use private vehicles also face traffic accident issues. In 2019, there were 1281 accident cases that caused Rp 2.096.720.000,00 losses. Most of the cases are due to driving behavior. Since most drivers in Makassar are male, males have more aggressive driving behaviors' than females (Jailani Rumasreng et.al, 2021).

As one of the efforts to solve traffic jams, the Central Government through the Ministry of Transportation has proposed the operations of Bus Rapid Transit (BRT) or well known as busway which is currently starting to be implemented in various cities in Indonesia. Bus Rapid Transit (BRT) is an innovative and cost-effective form of public transportation. BRT is a combination of facility, system, and vehicle investments that increase the efficiency and effectiveness of the service to the end user. Appropriate and effective BRT implementation improves system performance, increases transit ridership, and improves air quality (Caltrans website, 2021).

According to the Strategic Plan of the Indonesia Ministry of Transportation (MoT), the Government plans to build BRT or reform public transportation in twenty-one cities across Indonesia within five years. One of the cities is Makassar (Mamminasata). The city used to have a 'Trans Mammanisata' which is a semi-BRT service with 12m high-floor buses provided by the Ministry of Transport and its system was operated by DAMRI (SOE) since 2014 with the operation of 7 routes. In 2019, DAMRI suffered financial loss due to the low load factor of the routes and kept only two routes operating. This has gradually withered away as buses went out of service and unfortunately were not replaced. All that remains is an occasional bus to the airport during a few trips per

day. Although it was named BRT system, the service does not meet the BRT standard. The BRT Mamminasata is like a public bus, since it does not have dedicated lanes, fixed schedules, rapid services, integrated management systems (fleet management, automated fare collection, passenger information system), etc.

In 2021, the MoT launched the TEMAN Bus program, but the service program (direct payment to bus operators), for serving the BRT system in Mamminasata (Trans Mamminasata). The implementation of Trans Mamminasata has involved several stakeholders as follow: MoT as the funder, Transportation Agency (Dishub) of South Sulawesi Province as the regulator in the province since the route across cities and regencies in Mamminasata, and Dishub in the cities and regencies (Makassar, Maros, Sungguminasa, and Takalar) as the regulator in each area. SIGANDA as the association of Pete-pete drivers and owners are not directly involved in this project. This situation happened because the BRT will use the big bus while the existing Pete-pete is categorized as a minibus. The operation of Mamminasata BRT that manages 22 buses gives benefits for the people. People do not have to pay for the ticket, it is free. But this situation has shifted Pete-pete's passengers to BRT since some of the BRT routes overlap with existing Pete-pete routes. This condition had a bad impact on Pete-pete's driver welfare (revenue dropped significantly) that led protests from Pete-pete's drivers. They have done a series of demonstrations for this imbalance competition from 2 December 2021 until 17 February 2022.

Table 1.3 Demonstration record of Pete-pete's driver to Dishub of South Sulawesi Province

Date	Issues	Result
2 December 2021	30 Pete-pete's drivers refuse Trans Mamminasata's route from the Airport to City Center.	No agreement with the Government
14-15 December 2021	Hundreds of Pete-pete's drivers under SIGANDA (Land Transportation Association) refused Trans Mamminasata's route that overlaps with their routes.	Agreement among SIGANDA, Government (MOT and Dishub of South Sulawesi Province), Trans Mamminasata Bus Operator (PT Sinar Jaya). Key agreement points: 1. Rerouting of Trans Mamminasata's route 2. Trans Mamminasata's bus cannot stop at MTOS bus stop and Cokroaminoto bus stop.
17 February 2022	SIGANDA led a demonstration to refuse Trans Mamminasata's route. SIGANDA felt the	Agreement between SIGANDA and Dishub of South Sulawesi Province.

Date	Issues	Result
	government did not commit to the previous agreement.	Key agreement points: 1. Rerouting of Trans Mamminasata's Corridor 2 or 3 2. Bus stop distance is at least 500 m. 3. SIGANDA will do technical analysis to propose the Trans Mamminasata rerouting plan. 4. Trans Mamminasata's bus can't stop at 4 bus stops: MTOS, Cokroaminot, Perintis, and Grand Square.

(source: various website, MTI, analysis)

This demonstration will happen in the future if the government cannot integrate the Pete-pete into the BRT system. Therefore, the government needs to negotiate and then offer the best package to Pete-pete's driver and owners through SIGANDA (Land Transportation Association) to solve this issue permanently and develop the best transportation system in Makassar City and surroundings.

II. RESEARCH METHODS

The research method used in this study is the qualitative method. Sugiyono defines that qualitative research is more suitable for the type of research that understands social phenomena from the participant's perspective (Sugiyono, 2006). It can also be interpreted as research that is more suitable to be used to examine the condition or situation of the object of research. This research is a qualitative type through literature review. Stages of research carried out by collecting literature sources, both primary and secondary (Darmalaksana, 2020).

The objective of this study is to find out the most appropriate scheme options for Pete-pete's actors (drivers and owners) to be integrated with Trans Mamminasata BRT system based on lessons learned from previous cases that occurred in DKI Jakarta Province and Semarang City through a negotiation process between dispute parties.

III. THEORY

Negotiation Strategy in Conflict

Before talking about negotiation, it would be good for us to know the definition of conflict. There are many definitions of conflict described by experts or academics. One explanation that can be understood simply is that conflict is a natural disagreement resulting from individuals or groups that differ in attitudes, beliefs, values, or needs (source: Conservation Technology Information Center, Lafayette, IN). Conflict does not always mean negative as long as it is effectively managed. Negotiation and conflict management are indispensable parts of each other. Where there is conflict management, the role of negotiation is vital to succeed in it.

Negotiation is defined in different terms by several experts. A process of combining of divergent/conflicting

positions through communication into a joint decision where it has a role to play in three acts – in the "prologue," when the conflict is merely an hence negotiation has a role to play in three acts – in the "prologue," when the conflict is merely an issue or a problem, to prevent it from getting worse; during the conflict if the first has failed, to provide solutions and resolutions; and in the crisis, if the first two have failed, to bring the escalation and violence to an end (I William Zartman, 2008). Negotiations take place in a wide range of contexts both simple and complex situations and ones that involve less or more conflict (Christopher W. Moore & Peter J. Woodrow, 2010). There are many other definitions of negotiation that can be found from several literature sources.

In performing negotiations, there are two strategic approaches commonly known as zero-sum and non-zero-sum. Zero-sum or distributive strategies are ones in which there can be only one winner or where the parties are attempting to get the larger share or piece of a fixed resource through distributive bargaining strategy. The purpose of the negotiation is to claim value. Meanwhile, non-zero-sum or integrative or mutual gains strategies are ones in which many people can achieve their goals and objectives through integrative negotiation. The purpose of the negotiation is to claim value. (Roy J. Lewicki et.al, 2016). Each strategy has its own steps. Robert W. Johnston added accommodative negotiation to these existing approaches and summarized them by making comparisons across some aspects as shown in the table 3.1 below.

Table 3.1 Characteristics of Different Engagement Strategies

Aspect	Competition (Distributive Bargaining)	Collaboration (Integrative Negotiation)	Accommodative Negotiation
Payoff structure	Usually a fixed amount of resources to be divided	Usually a variable amount of resources to be divided	Usually a fixed amount of resources to be divided
Goal pursuit	Pursuit of own goals at the expense of those of others	Pursuit of goals held jointly with others	Subordination of own goals in favor of those of others
Relationships	Short-term focus; parties do not expect to work together in the future	Long-term focus; parties expect to work together in the future	May be short term (let the other win to keep the peace) or long term (let the other win to encourage reciprocity in the future)
Primary motivation	Maximize own outcome	Maximize joint outcome	Maximize others' outcome or let them gain to enhance relationship
Trust and openness	Secrecy and defensiveness; high trust in self, low trust in others	Trust and openness, active listening, joint exploration of alternatives	One party relatively open, exposing own vulnerabilities to the other
Knowledge of needs	Parties know own needs but conceal or misrepresent them; neither party lets the other know real needs	Parties know and convey real needs while seeking and responding to needs of the other	One party is overresponsive to other's needs so as to repress own needs
Predictability	Parties use unpredictability and surprise to confuse other side	Parties are predictable and flexible when appropriate, trying not to surprise	One party's actions totally predictable, always catering to other side
Aggressiveness	Parties use threats and bluffs, trying to keep the upper hand	Parties share information honestly, treat each other with understanding and respect	One party gives up on own position to mollify the other
Solution search behavior	Parties make effort to appear committed to position, using argumentation and manipulation of the other	Parties make effort to find mutually satisfying solutions, using logic, creativity, and constructiveness	One party makes effort to find ways to accommodate the other
Success measures	Success enhanced by creating bad image of the other; increased levels of hostility and strong in-group loyalty	Success demands abandonment of bad images and consideration of ideas on their merit	Success determined by minimizing or avoiding conflict and soothing all hostility; own feelings ignored in favor of harmony
Evidence of unhealthy extreme	Unhealthy extreme reached when one party assumes total zero-sum game; defeating the other becomes a goal in itself	Unhealthy extreme reached when one subsumes all self-interest in the common good, losing self-identity and self-responsibility	Unhealthy extreme reached when abdication to other is complete, at expense of personal and/or constituent goals
Key attitude	Key attitude is "I win, you lose"	Key attitude is "What's the best way to address the needs of all parties?"	Key attitude is "You win, I lose"
Remedy for breakdown	If impasse occurs, mediator or arbitrator may be needed	If difficulties occur, a group dynamics facilitator may be needed	If behavior becomes chronic, party becomes negotiationally bankrupt

(Source: Adapted and expanded from Robert W. Johnston, Negotiation Strategies: Different Strokes, for Different Folks, Personnel 59 (March-April 1982), pp. 38-39).

In this study, we are going to choose which strategy used in the negotiation process among key actors (MOT, the Dishub of South Sulawesi Province,

Dishub of Makassar City, and the local Land Transport Association (SIGANDA)) and the strategy can pursuit of negotiating goals of finding the most appropriate scheme options for Pete-pete to be integrated with Mamminasata BRT.

Multiparty Negotiations

In terms of parties who are involved in the negotiation, there are more than two parties: the central government (MoT), the provincial government (Dishub of South Sulawesi Province), Dishub Makassar, and the local Land Transport Association (SIGANDA). It is categorized as multiparty negotiations. A multiparty negotiation consists of a group of three or more individuals, each representing his or her own interests, who attempt to resolve perceived differences of interest or work together to achieve a collective objective (https://thebusinessprofessor.com/). Multiparty negotiations have more negotiators on the table and more complexity. As according to L. Crump and A. I. Glendon (2003, p. 197), "negotiations involving multiple parties are complex because of the potential number of interacting variables. Understanding multiparty negotiation is hindered by a lack of theory that can adequately explain the multiplicity of interactions that typically characterize such negotiations. Negotiation sides, parties and roles are just some of the many variables that interact to produce outcomes. The complexity generated through such interaction is a challenge for theory development".

To overcome the complexities of multiparty negotiation, there are main elements of the process of method selection for negotiations' problem-solving can be considered and includes the following research phases: (1) identification of the problem of method selection, (2) setting the research objectives, (3) investigating the problem of method selection, (4) identification and evaluation of alternative solutions, and (5) selection of the most suitable alternative. The research phases can be adopted by negotiators further so that later the solution that is considered the best can be done together.

IV. FINDINGS

1. Type of BRT System

Mainly, there are two types of BRT system, which are trunk and feeder, and direct service. Trunk and feeder are a concept that divides the BRT into trunk line where the bus only operates in the dedicated lane, and feeder where the bus operates outside the main corridor and feeds passengers to the trunk line, such as in Bogota BRT (Transmillenio), Colombia. Direct service is where the bus service for certain routes is inside and outside dedicated lanes. The concept of direct service is to minimize transfer points for passengers. The first BRT that implemented this concept is Guangzhou BRT.

Transjakarta used the trunk and feeder concept in the beginning, but since 2010, they have started to use the direct service concept. For Trans Mamminasata BRT, the government will use the direct service concept in the fully operational mode.

2. BRT contractual scheme

In the operation of BRT, the contractual agreement with the bus operator is very important as the first step to ensure the sustainability of the BRT system. There are several forms of cooperation that can be seen in this table below.

Table 4.1 Different Types of Contracts for BRT Bus Operators

Contract Type	Description	Pros	Cons
Profit sharing	Operators are paid a predetermined share of total system revenues, based on a pre-agreed- upon formula (usually linked to bus kilometers, customers served, or a combination).	• Gives operators strong incentive to reduce costs and attract customers; • Facilitates formation of large companies; • Removes destructive competition for customers; • Reduces risk of needed subsidies.	• Makes percentages difficult to negotiate in advance; Sometimes one element of the system ends up with a disproportionate set of profits; • Makes it more difficult to ring-fence if the system is not profitable.
Service contract (gross cost)	An operator is paid to operate a minimum number of kilometers of public transport services over the life of a contract anywhere directed by the municipality. Revenues are owned by the municipality, though may be collected by the operator.	• Ensures good service coverage; • Makes for compatibility with off-board fare collection and free transfers; • Ends dangerous competition at the kerb; • Makes for compatibility with interzone routes and modifying services; • Makes it easier to have multiple companies in the same zone, so the operator is less entrenched.	• Gives a weak incentive to control costs; • Leads to ongoing increasing operating subsidies; • Requires diligent and competent municipal authority to supervise; • Gives a weak incentive to attract new customers or enforce fare collection.
Area contract (gross cost)	An operator is paid to operate a set of services within a zone, anywhere instructed by the municipality, usually by the bus kilometres or bus hours. Fare revenue is owned by the municipality.	• Ensures good service coverage; • Makes for compatibility with off-board fare collection and free transfers; • Ends dangerous competition at the curb.	• Leads to poor service between zones; • Removes incentive to control costs, tends to lead to ongoing increasing operating subsidies; • Requires diligent and competent municipal authority to supervise; • Acts as a weak

Contract Type	Description	Pros	Cons
			incentive to attract new customers or enforce fare collection; • Makes it difficult to replace an entrenched operator
Area contract (net cost)	A private operator provides a set of services determined by the municipal authority within a specified zone, and keeps all fare revenue in that zone.	• Reduces risk of open-ended subsidies; • Makes it easy for large companies to form; • Allows for good coordination and possible cross-subsidy within zone; • Mitigates destructive competition within the zone.	• Makes for poor service between zones; • Harder for off-board fare collection and free transfer; • Leads to limited public control over operator; • Makes it difficult to dislodge an operator for poor service; • Creates risk of dangerous on-street competition on corridors shared by zones.
Design-build-operate forms	Concessionaires are given a long-term contract to design, build, and operate a public transport system. Contractor owns the fare revenue.	• Raises capital for infrastructure, can provide good project management for new services; • Can provide quality, coordinated services.	• Leads to the same problems as with gross cost service contracts, plus there is less government leverage (due to contract length) to change services or control quality.
Route contract (gross cost)	Operator has a license with a city authority to provide bus services specified by the municipality on a route or a particular route, but revenue is owned by the municipal	• Gives the municipality greater control over the services; • Avoids dangerous competition for customers at kerbside; • Makes for compatibility with off-board fare collection and free	• Poses a disincentives operator to ensure secure fare collection; • Creates situation in which operator has weak incentive to improve efficiency of service; • Lowers responsiveness to

Contract Type	Description	Pros	Cons
	authority.	transfers.	needed service changes.
Route contract (net cost)	Operator has a license with a city authority to provide bus services specified by the municipality on a route or a particular route and all fare revenue is owned by the operator.	• Minimizes risk of ongoing open-ended subsidies, exposes operator to demand risk; • Gives the operator an incentive to collect revenue and operate the route efficiently; • Gives municipality some control over services.	• Makes it difficult to make changes to the network; • Disallows the cross-subsidizing of loss-making routes with more profitable routes; • Makes for fewer returns to scale; • Lacks compatibility with off-board fare collection; • Makes for dangerous competition for customers on corridors with multiple routes.

(source: BRT Planning Guide - ITDP)

The Buy the Service (BTS) program also called TEMAN BUS that is carried out by MOT uses the gross cost contract. This gross cost contract is the common scheme in BRT that provides a win-win solution for the government and bus operator. Transjakarta as the best BRT in Indonesia and Trans Semarang as the best BRT for medium city also use this contract scheme. Learning from both cities will be a good lesson as reflection for Mamminasata BRT.

3. Lessons-learned from TransJakarta

Transjakarta has done 2 types of bus reforms which are BRT integration (converted bus route to BRT system) which was conducted in the initial stage of Transjakarta (2004 – 2011) and Jaklingko (converted public transportation (known as angkot) as BRT feeder) which is running since 2019. In the initial stage of Transjakarta, the government gave preferential treatment to existing bus players to become BRT operators in appreciation of their long-lasting service in the public bus. This preference is in the form of direct appointment to a company formed by existing bus operators that more than 50% of their route overlaps with the Transjakarta route. This direct appointment is also through a tender process that we called Transjakarta initial route operator selection. Later, this condition was also regulated in the Regional Regulation Number 10 of 2014 concerning Management of the Bus Rapid Transit System ("Perda 10/2014").

JakLingko is an intermodal transportation integration program in Jakarta which is well known as OK Otrip. This program is one the Governor of DKI Jakarta promised during the election campaign. At the beginning, the government did a trial in implementing OK Otrip from January to September 2018. Based on the good result evaluation during the trial period, the program was officially implemented using the name JakLingko in October 2018. People can travel from its origin to destination using angkot and Trans Jakarta as one trip within three hours with one single fare of IDR 5,000. The fare is paid with non- cash payments. This year, JakLingko will also be applicable in other modes such as MRT and LRT Jakarta. The Jaklingko transformation target is described in the table below.

Table 4.2 JakLingko Transformation Target

Baseline	Transition Period	Conditions to be Achieved
Angkot operators only get permits to run cooperatives from the Transportation Agency but have minimal control over daily operations	The angkot operator has a contract with PT. Transportasi Jakarta (Transjakarta), for this trial period the contract is valid for 3 months. For the initial selection, public transportation is prioritized under the age of 5 years	The public transport operator has a contract with PT. Transportasi Jakarta with multi-year contracts (5 - 7 years) and the operator must be able to meet all the criteria in determining the SPM, including having a depot and replacing the fleet as required
Operator income from driver's deposit	The operator is paid monthly by Transjakarta based on the distance traveled by the fleet service	Operators are paid per period agreed upon by Transjakarta based on the distance traveled by the fleet with a cost component per kilometer including fleet investment and depots
The angkot that operates is sometimes unlicensed. (the unlicensed driver is still there, the operating fleet sometimes does not pass the KIR)	Using existing public transportation that has a service license and angkot that is less than 5 years old	The new fleet must meet the Minimum Service Standards (SPM) from the Ministry of Transportation, Transportation and Transjakarta
The driver's income depends on the number of passengers	Drivers receive a monthly salary and allowance from the operator	Drivers get good training. Drivers receive a monthly salary and allowance from the operator. All rights of the driver including insurance must be fulfilled by the operator. Drivers work using a shift system with working hours of 8 hours per day.

Baseline	Transition Period	Conditions to be Achieved
Drivers pick up and drop off passengers at any place according to passenger requests	The driver must pick up and drop off passengers at the bus stop/bus pole	The driver must pick up and drop off passengers at the bus stop/bus pole However, the condition of the bus stop still needs to be improved and the location still needs to be adjusted to provide comfort to passengers
Passengers pay in cash to the driver	Ticket machines are installed on the bus fleet. Even though electronic tickets are available, there are still technical problems. For the time being, payments are free so as not to hinder the implementation of this program	Payment using electronic money card. Each passenger pays with one card (one man one ticket) This card can later be used for other modes in Jakarta, such as Transjakarta, MRT and LRT. In fact, it is possible to develop it by integrating it with parking Payments
Fares depend on distance travelled and driver's policy	During this transition period, tickets are still free	The fare is integrated with Transjakarta buses and other modes of transportation such as MRT and LRT using a time-based scheme, use for a certain period of time (3 hours)
Existing fleet, there are fleets that do not perform KIR test and are more than 10 years old	Still using the existing fleet under the age of 5 years and confirmed to have passed the KIR test	The fleet is gradually being rejuvenated by using a fleet that has optimal capacity, is comfortable and safe
No integration with other modes	In addition to tariff integration (time based) for 3 hours, physical integration has only been attempted with Transjakarta bus stops, namely by placing angkot stops near Transjakarta bus stops, making it easier for passengers to move	Will be integrated with Transjakarta, MRT and LRT Jakarta (physical integration and tariffs)

(*source: ITDP*)

The Jaklingko is implemented in 5 stages as follows:
Stage 1: Determination of Priority Routes. At this stage, the government determines the route based on the results of analysis, discussion, and decisions by relevant stakeholders, which will be used in the trial and implementation period. The selection criteria are:

- Angkot route has overlap with the Transjakarta corridor below 20%
- Angkot routes are part of 90 of 150 routes that are prioritized by Dishub of DKI Jakarta. Total impacted angkot fleets are 8000 units which will later be integrated with the Jak Lingko system in stages over the next 3 years.
- The fleet lifetime that prioritizes participation in the early stages is under 5 years old. Next, Jaklingko will integrate under 10 years old vehicles.
- The number of fleets. This criterion is considering the number of fleets on that route can indicate that supply and demand is there.

Stage 2: Negotiation Process with Operators. During the negotiation, it is crucial to have a mediator that can bridge government and operators. The mediator will facilitate the communication and bridge the gap if there is a deadlock which often happens, especially when discussing the tariff. In Jaklingko, ITDP takes the role.

Stage 3 - Comparative Study. Jaklingko brings operators to do comparative study in Seoul City, Korea. This comparative study has put the government and operator to have a common ground perspective about Jaklingko objective and achievement in the end of transformation program. This process has built trust between both parties and the result is written in the report that was agreed by both parties.

Stage 4 - Partnership Contract Signing. After a series of discussion about project structure, business model, tariff, and any industrial relationship issues, both parties agree to formulate it in a contractual agreement.

Stage 5 – Implementation. At the beginning of the trial period, there are still several components in the cooperation contract that are still being refined, including:

- Employment insurance for drivers who have not been fully fulfilled
- Daily mileage is still under negotiation
- Payments to operators are still on a daily basis

After the trial process, Dishub of DKI Jakarta and Transjakarta is continuing to improve the service, rejuvenating the fleet, and doing monitoring and evaluation.

4. Lessons learned from Semarang

Trans Semarang (TS) is managed by BLU UPTD Trans Semarang under the Dishub of Semarang City. By the end of 2020, TS served 9 BRT corridors, including the Airport- Simpang Lima Corridor, and 3 feeder routes. TS bus operations are carried out by third parties, namely private companies as bus operators. The bus operator agreement is based on the Lump Sum per Kilometer Service contract (gross cost contract) which pays a certain amount according to an agreed mileage. TS is equipped with a control room to monitor the operation of the service in the real time.

The selection of Trans Semarang operators was using a scrapping approach. The scrapping's objective is to integrate with BRT and make public transportation business more interesting. The scrapping has 2 options which are selling the fleet to other cities and the new fleet is diverted to another route or crush the Angkot and sell it as junk.

The scrapping is implemented in 5 stages as follows:

Stage 1: Determination of Priority Routes. At this stage, the government determines the route based on the results of analysis, discussion and decisions by relevant stakeholders, which will be used in the implementation period. The first selected route is Corridor 2: Terboyo–Sisemut.

Stage 2: Negotiation Process with Operators. During this stage, Dishub of Semarang City explained the BRT plan and benefits for the Angkot owner and drivers with all stakeholders, especially SIGANDA, Angkot owners, and Angkot drivers.

Stage 3 - Comparative Study. Dishub of Semarang City had taken the

SIGANDA, representative of Bus Operators and Bus Drivers, and member of DPRD to do comparative study to Transjakarta. This comparative study has put the government and operator to have common ground perspective about BRT system and business model.

Stage 4 – Bus operator procurement and Contract Signing. The government do the procurement with following criteria:

- Existing public transportation entrepreneurs that have routes that intersect with Corridor 2: Sisemut - Terboyo are at least 50% long.
- Each operator is able to suspend the public transport operation (Angkot's route) permit that overlap with the BRT route with consideration that "1 BRT bus fleet replacing 4 angkot or 2 medium busses (elf type bus) or 1 regular medium bus (3/4 type bus) attached with a power of attorney from the owner of the existing public transport operation permit."
- Documents of power of attorney from the owner of the transportation operation as well as evidence of a Certificate of Freezing Route are one of the documents used to join and form a consortium.

As a result, PT Trans Semarang, which consists of existing bus operators which are 14 companies, and 1 individual got the Bid Award and signed the contract agreement.

Stage 5 – Implementation. PT Trans Semarang that is currently transformed as PT Surya Setia Kusuma Semarang did scrapping for 57 buses on routes B16 and B43. PT Surya Setia Kusuma as bus operator does the fleet management and operation comply with SPM issued by UPTD Trans Semarang.

V. DISCUSSION

The implementation of the BTS program is managed by the process as shown below.

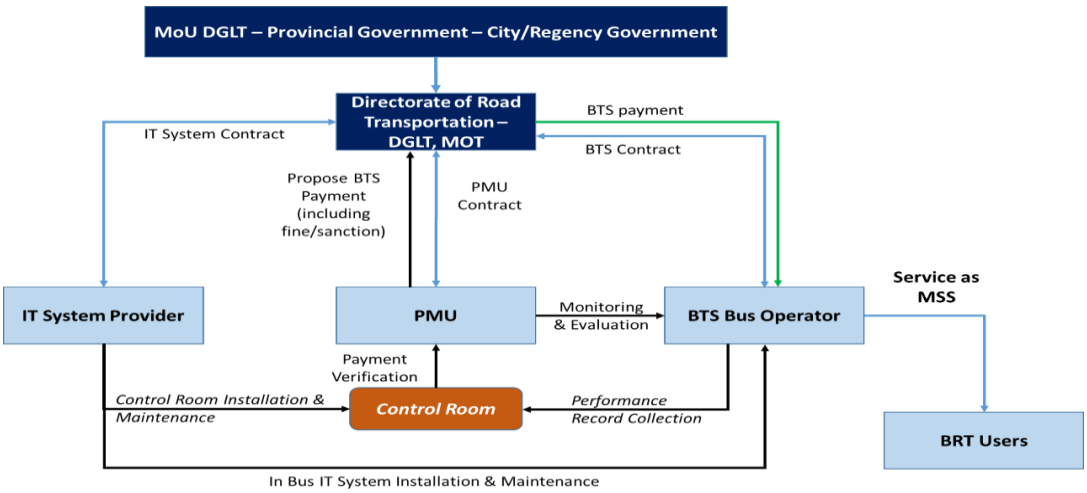

Figure 5.1 BTS Process Flow (source: Rencana Revitalisasi Angkutan Massal Berbasis Jalan Melalui Skema Pembelian Layanan (Buy the Service), Ministry of Transportation, 2019, analysis)

The BTS process flow is explained as follows:

1) Before BTS is implemented, there should be a MoU between Directorate General of Land Transportation (DGLT), Provincial Government, and City/Regency Government regarding the BTS Program. The MoU will regulate the responsibility of DGLT to provide BTS for all or several BRT routes, including for the selection of bus operator, IT System provider, and BTS Management Project (PMU). While the provincial and city/regency government has the responsibility for providing the infrastructure, including pedestrian improvements.
2) The MoT enters into a cooperation agreement with 3 parties, namely:
   a. BTS Bus Operators, which are bus operators who operate and maintain buses in the BRT network and are appointed as BTS operators based on tender process.
   b. PMU, namely consultants appointed based on tender results.
   c. IT System Provider, i.e., vendor appointed based on the tender results.
3) The BTS Bus Operators are responsible for providing services according to the SPM specified in the BTS contract. Bus operators wishing to participate in the BTS program must be able to meet the requirements in the procurement documents that consist of administrative, technical, and financial requirements.
4) The PMU is a consultant in charge of preparing, organizing, implementing, and monitoring and evaluating the performance of BTS Bus Operators.
5) IT System Providers are responsible for providing and installing IT systems on each bus, namely the bus tracking system and e-ticketing system, as well as the control room. The IT System Provider is also tasked with maintaining the IT system itself, including ensuring it can operate properly during the BTS program.

Based on the cases above and the condition of Makassar City, the government can combine all the systems that are suitable for the Makassar situation. Key actors involved in this negotiation are:

1. MOT. This ministry is the owner of the TEMAN BUS program that supports Trans Mamminasata.
2. Dishub of South Sulawesi Province. This agency has authority in managing and issuing permits for Trans Mamminasata BRT.
3. Dishub of Makassar City. This agency has authority to issue permits for Pete-pete's route license.
4. SIGANDA. The association of Pete-pete's key actors that become a media to bring their aspiration to the respective parties.
5. Pete-pete's key actors. Pete-pete's owners who invested for the bus and Pete-pete's drivers. Both key players have been directly impacted by the Trans Mamminasata BRT operation.

Dishub of South Sulawesi Province and SIGANDA will be the main representative players in the negotiation. Therefore, both parties need to bring their solution on the table well prepared and ready to listen and accommodate each other's ideas using an integrative negotiation strategy which covers customer oriented, service excellence, and sustainable systems. The options can be proposed to the existing operator and driver (transition package) as follows:

1. Operator (Pete-pete owners). The operator as investor will get paid a certain amount based on km, not passengers. This payment already covers the capital expenditure,

operational expenditure, and their profit. Some options that possible to launch are:

a. Option 1: For the angkot that its route is more than 50% overlap with the BRT, they can have an option as bus operator as long as they can fulfil the certain administrative, technical, and financial aspect for the selection.
b. Option 2: For the angkot that its route is less than 50% overlap with the BRT, the government can implement the scrapping method so many angkot will be replaced with the new buses and all players can form an entity to participate as the operator in the selection.
c. Option 3: If the operator cannot have access to financial institutions and form an entity, the Jaklingko scheme can be implemented.

2. Driver. Drivers will have an option to be trained as a bus driver with a good salary. This will solve welfare issues since they will get certainty of income compared to the existing condition.

To implement this situation, the 5 stages process that have been done in Jakarta and Semarang can be done as follows:

Stage 1: Determination of Priority Routes. Government needs to determine which routes that overlap more or less than 50% with existing routes.

Stage 2: Negotiation Process with Operators. In this negotiation, the government needs to calibrate the transportation vision with all players on the table. The vision should be to transform the best public transportation services in Mamminasata, especially Makassar City. Then, The Government needs to provide a clear and transparent package for existing players to build trust and certainty for their business in the future.

Stage 3 - Comparative Study to make all the players see the clear image of the future transportation.

Stage 4 – Bus operator procurement and Contract Signing. Make sure the criteria reflect the negotiation result.

Stage 5 – Implementation. Monitoring and evaluation of contract agreement will be key for BRT sustainability.

VI. CONCLUSION

The BRT system in Makassar will use a direct service system to buy the service contract (gross cost contract) to the bus operator (big bus, medium bus, or small bus). The 3 options for Pete-pete's owner and package for driver should be well structured by the government as the negotiation material.

In conducting the 5 steps, the government must design it very well to avoid any bias. Clear socialization to all parties through mass meetings or one-on-one meetings needs to be carried out with productive oriented and same spirit.

For further studies, we suggest doing research to gain an existing players perspective on the BRT transition and testing the transition package as part of the negotiation.

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