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Strategi Pelaksanaan untuk Mewujudkan Smart Mobility

Implementation Strategy of Bringing Smart Mobility into Reality

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Abstrak
Tingginya pertumbuhan kendaraan diperkotaan membuat semakin tinggi tingkat kemacetan dan membuat potret transportasi perkotaan menjadi buram. Hal ini merupakan tantangan dan peluang untuk menyediakan sistem mobilitas yang smart. Smart Mobility merupakan sistem pergerakan yang memungkinkan pencapaian tujuan dengan less mobility, move freely, dan less travel time. Kajian ini bertujuan untuk mengetahui strategi pelaksaan dalam mewujudkan Smart Mobility. Strategi yang digunakan yaitu: pertama, strategi diversifikasi yang meliputi sinkronisasi dan kerjasama dengan Pemerintah Pusat dan Provinsi. Kedua, strategi agresif yang meliputi strategi penerapan E-Gov melalui Pengembangan IT, strategi penguatan integrasi moda Transportasi dan strategi pengembangan rencana strategi dinas mengacu pada Masterplan Smart City. Metode yang digunakan adalah metode kualitatif. Teknik pengumpulan data yang digunakan adalah FGD dan dokumentasi data, sedangkan analisis data dilakukan dengan Prosedur Analisis Data. Hasil penelitian menunjukkan bahwa terdapat strategi diversifikasi antara lain penyediaan angkutan umum pintar (BST dan feeder) dan angkutan aglomerasi (TransJateng). Sedangkan strategi agresif meliputi 1) strategi intensifikasi penerapan e-Gov melalui dan pengembangan IT angkutan umum dalam skema "buy the service" menggunakan aplikasi TEMAN bus, 2) strategi penguatan integrasi antar moda transportasi berupa perbaikan aksesibilitas angkutan umum (BST) dengan angkutan pengumpan dan aglomerasi (TransJateng), dan 3) meningkatkan smart mobility dengan meningkatkan kualitas layanan dan aksesibilitas angkutan umum.

Kata Kunci: Strategi, Strategi Agresif, Strategi Devensif dan Smart Mobility

Abstract
High urban vehicle growth rate results in high traffic jam rate and makes the portrait of urban transportation dull. It is a challenge and an opportunity all at once to provide smart mobility system. Smart mobility is a mobility system enabling the arrival at destination through less mobility, move freely, and less travel time. This study aims to find out the implementation strategy in bringing Smart Mobility into Reality. The strategies used were firstly, diversification strategy, the synchronization and cooperation with Central and Provincial governments. Secondly, it is aggressive strategy involving the strategy of applying E-Gov through IT Development, strategy of reinforcing

the integration between Transportation modes and strategy of developing Office Strategy Plan referring to Master plan of Smart City. The method employed was qualitative one. Techniques of collecting data used were FGD and data documentation, while data analysis was carried out using A Procedure for Data Analysis. The result of research showed that there is a diversification strategy including providing smart public transportation (BST and feeder) and agglomeration transportation (TransJateng). Meanwhile, aggressive strategy includes 1) the strategy of intensifying the application of e-Gov through and developing IT of public transportation in "buy the service" scheme using TEMAN bus application, 2) strategy of reinforcing integration between Transportation modes in the form of improving accessibility of public transportation (BST) with feeder and agglomeration transportation (TransJateng), and 3) improving smart mobility by improving service quality and accessibility of public transportation.

Keywords: Strategy, Aggressive Strategy, Diversification Strategy, and Smart Mobility

Introduction

The phenomenon of high motor vehicle growth rate in Indonesia reaches 9.05% per year and is inversely proportional to that of public transportation vehicles, 1.45% per year. It is confirmed with a condition in which the number of private vehicles is larger than that of public ones (ewada.id). In addition, there is a phenomenon where the number of private vehicle users is more than and inversely proportional to the number of public transportation users.

Surakarta/ Solo City grows as a fairly strategic city as the hub fairly crowded subosukowonosraten hinterland on the day (about 1-1.7 millions vehicles enter into – exit from Solo City (M, Fariq, 2019). Referring to Solo Share Transportation Mode, 91 percents of Solo City citizens use private vehicle and only nine percents have public transportation such as bus, truck, pedicab, and etc (Perdana, 2019). It means that there will be bigger bottleneck. It will affect portrait of public service in transportation sector. Therefore, the availability of smart mobility system becomes challenge and opportunity in sustainable transportation service.

In the attempt of dealing with traffic jam and vehicle density or solving transportation problem in urban area, public transportation can be solution in fulfilling the people's need for transportation (ITDP Indonesia, 2019). The presence of public transportation can create connectivity and remove the gap occurring within society. In the presence of public transportation, the people are expected to access all needs such as job, education, social interaction, and everything contributing to the need achievement/fulfillment (United Nations, 2016).

In the attempt of improving service quality of urban development, Smart City concept is a strategy of improving life quality in urban space, including the improvement of environment quality and public service quality. Caragliu, Del Bo, & P. Nijkamp (2011)

stated We believe a city to be smart when investments in human and social capital and traditional (transport) and modern (ICT) communications infrastructure fuel sustainable economic growth and a high quality of life, with a wise management of natural resources, through participatory governance" as suggested by Giffinger et. al (2007), Dameri (2013), Cocchia (2014), Esabella (2016).

Smart Mobility is one of Smart City Dimensions, constituting a smart mobility system. Smart Mobility, according to Nam & Pardo (2011), is a mobility smart enabling the achievement of achievement through less mobility, move freely, and less travel time. Meanwhile, Giffinger et. al (2007) focuses more on local and international accessibility and information and communication technology and sustainable modern system). Smart Mobility Strategic Plan is expected to improve Smart Transportation service.

Considering the study on Strategic planning in 2019 in Surakarta City Transportation Office conducted using SWOT analysis and Litmus Test, the following strategies are obtained: 1) strategy of developing Office's Strategic Plan with Smart City master plan, 2) strategy of developing the measures of improvising and synchronizing Central and Local Government's policy, 3) strategy of improving and intensifying e-Gov application through IT application and development, and 4) strategy of confirming Integration between transportation mode.

Another study determined its implementation strategy. Strategy, according to Fleisher & Bensoussan (2007), is a decision and or action taken in corporation related to acquiring and releasing the existing asset to pursue the efficiency of maximization plan chosen (in program or activity implementation). Meanwhile, Bryson (2014) explained strategy as objective, decision, policy, program, resource allocation that can determine how the organization is, the objective of organization, and what is done by organization. Strategy is usually developed to deal with strategic issues in which it needs organizational response. Furthermore, Gadis in Bryson & George (2020) defined strategy as a means of connecting aspiration to the ability needed to achieve it.

Meanwhile, according to Rangkuti (2008) and David (2011), there are 4 (four) types of strategy: 1) SO strategy (Aggressive Comparative Advantage) or strategy to achieve growth, the strategy using strength to capture opportunity, 2) WO strategy or Turn-around Investment or Orientation" in the sense of how to correct the weaknesses existing in order to utilize opportunity, organization is faced with internal weaknesses, but should capture the substantial opportunity, 3) ST/Diversification and Mobilization strategy, to utilize/develop the strength existing to move toward the future. Organization is faced with the strengthening/strong situation or condition, however the environment condition is unfavorable (faced with challenge and threat), 4) WT/Defensive and Damage control

Strategy. Organization is faced with the worst condition, in which it deal with internal weaknesses and external threat/challenge all at once, what it does is to survive or to control the loss, to do merger, thrift or liquidation. It is in line with David (2011) and Fahmi (2003).

Another study on the transportation-related strategy has been conducted by Putri & Ritzky (2015) entitled "Strategy of Developing Bus Transportation Business (A case Study on Otobus Company in Lombok). The result of study showed that ST or diversification strategy was used through opening new transportation channel for tourism. Still another study was conducted by Mangundap, Nangi, & Pakasi (2017) on the strategy of Developing Transportation Network system in Manado, finding that SO or aggressive strategy was used, i.e. "Developing sea transportation network, using potential geographical location and natural resource by utilizing the opportunity in tourism sector".

Methods

This study was a qualitative research, according to Creswell (2007), constituting an approach to explore and to understand the meaning depth and to translate a problem's complexity. Meanwhile, according to Bogdan and Taylor (in Moleong, 2007), it is defined as the research procedure providing descriptive data in the form of written or spoken words from people and behavior observable. Meanwhile, according to Moleong (2007), the definition of qualitative research was the one intended to understand a phenomenon about what is experienced by the subject of research, e.g. behavior, perception, motivation, action, and etc.

Data source or informant was obtained using purposive sampling technique by designating those knowing the issues. The informants were: Chairperson of Surakarta City's Transportation Office, Chairperson of Transportation Division, Head of people (human) transportation sub Division, Chairperson of Surakarta City's Development Planning Agency, Head of Science and Technology Development and Application Sub Division in Surakarta City's Development Planning.

Techniques of collecting data used were FGD, Interview, and Documentation (secondary data). FGD was conducted with data source and member of research team. Interview, according to Sugiyono (2014) belongs to in-depth interview. Meanwhile secondary data or documentation was used to as supporting data for the implementation of research, i.e. the data collection utilizing document, report, and recordings relevant to the study. Secondary data was obtained from Transportation Office and Regional Planning Agency.

Data analysis process reflects a process combining data itself. Technique of analyzing data used in this research refers to McNabb (2002) explaining that there are 6 data analysis

procedure: 1) *Organize the data, 2) Generate Categories, themes, and Pattern,* 3) *Code the Data, 4) Apply the ideas, themes, and categories, 5) Search for alternative explanation, 6). Write and present the report.* Meanwhile, Data validation was conducted using Triangulation, called "triangulation" model or exactly Triangulation model by Denscombe (2007). Triangulation method includes a measure to view something more than perspective, using different method, different data source, or event different authors in the study. In this research using Triangulation method, cross-checking data was conducted with a variety of techniques of collecting data.

Result And Discussion

This research will discussed implementation strategy in bringing Smart Mobility into reality, constituting the Strategy in Planning. The planning strategy implemented in Surakarta City's Transportation Office, Central Java consists of two strategies: diversification and aggressive strategies.

Diversification Strategy

Diversification strategy is a strategy resulting from the strength of cooperation between central and provincial governments to deal with traffic jam challenge due to urbanization current and the less controlled increase in the number of private vehicles. The strategy used was to develop measures to improvise and synchronize the policies of Central and Local Governments. The implementation strategy taken is to provide Fast, Reliable, Efficient, and Effective Public Transportation, with intermode integration (involving Feeder, BST, and TransJateng) and through cooperation with: 1) Central Government, through entering into Mutual Agreement Between Land Transportation Directorate General of Republic of Indonesia's Transportation Ministry and Provincial Government of Central Java and Surakarta City Government Number HK.201/8/15/DKJD/2019; Number: 550/205/2019; Number: 551/553027. i. It is intended to ensure the implementation of urban public transportation planning, development, and operation corresponding to the function and authority of PARTIES. It aims to developing a sustainable urban transportation infrastructure under the Ministry of Transportation's coordination, particularly Directorate General of Land Transportation. Its scope includes Urban Transportation planning, development, and operation activities in Surakarta City. Overall, the operational fund grant will be 50 billions later. There has been a contract amounting to 33 billions up to this year for corridors 1, 2, 3, and 4.

2) Cooperation with Provincial Government, the development of Agglomeration Transportation in Central Java called "TransJateng". For Surakarta City, it includes Agglomeration map III UBOSUKOWONOSRATEN with 4 BRT corridors: Corridor 1:

Solo-Pilangsari Terminal (Solo-Sragen), Corridor 2: Solo-Sunggingan Terminal (Solo-Boyolali), Corridor 3: Solo-Krisak Terminal (Solo-Wonogiri); Corridor 4: Solo-Tawangmangu Terminal (Solo and Karanganyar). Solo-Kartosuro-Klaten Trajectory was catered on by Feeder transportation. Shuttle Bus is added in 2020 to cater on Solo - Sangiran Route.

Aggressive Strategy

In addition to diversification strategy in smart mobility development, there is also an aggressive strategy. This strategy results from the strength owned by Transportation Office in capturing the opportunity. There are three aggressive strategies:

Firstly, Strategy of improving and intensifying the application of e-Gov through IT application and development. In cooperating with Central Government in 2020, Government applied Buy the Service Scheme for Local Public Transportation. Buy the Service, according to Sutomo in Lefrandt (2003), is a system in which bus travels cater on the trajectories bought by Government to be sold later to the public with specified fee. "Buy the Service" system is a reform of city bus public transportation, putting the government on the position between operators and consumers. This Buy the Service scheme uses TEMAN bus application, a program developing road-based public transportation in urban areas using telematic technology, equipped with mobile application to facilitate the passengers to acquire information on bus stop, bus stop point, and bus departure schedule, and equipped with CCTV and driver alarm sensor giving the secure feeling to passengers. Teman Bus also uses some applications: web site to access information on route, bus stop, Social media to obtain information on service; Mobile application to get real time information on position and departure schedule.

Secondly, it is strategy of reinforcing Inter-mode Transportation Integration. This strategy is an aggressive strategy. Based on cooperation between Central Government, Provincial, and Surakarta City Government, the 5-year agenda focuses on inter-mode integration and improving accessibility through Developing Batik Solo Trans (BST), Feeder and Agglomeration transportation in Central Java, called TransJateng with the following principles: 1) focusing on Main Corridor: between 2 cities/regencies, 2) integrated with node, other transportation mode, 3) existing to be feeder, synergizing with public transportation and 4) developing connectivity between main corridors.

Thirdly, strategy of developing Office's Strategic Plan is corresponding to Smart City master plan. This strategy is very aggressive in nature as it results from issues arising from Strength and Opportunity. As known, in the attempt of bringing Smart City into reality, Surakarta City government has developed Smart City Master Plan in 2018, intended to be direction, reference of implementation, and parameter of Smart City development. The vision of

Surakarta Smart City is "Solo City toward Smart Culture and Smart Urban Services City" involving Smart Environment, Smart Society, Smart Economy, Smart Governance, Smart Branding and Smart Living. The concept of Surakarta Smart City does not contain Smart Mobility. But, Smart Mobility intended belongs to the target of Smart Living, "The realization of traffic disciplined community in highway through an effective and efficient traffic management under Transportation Office.

The tendency of increased use of private vehicles compared with public transport, makes the Smart Urban Service an urgency. Smart Urban Service is defined as the Organization of smart, reliable, accessible public transportation service using technology ware. Therefore, its implementation strategy includes: 1) improving the public service quality through smart mobility, by means of improving web-based traffic management, 2) providing a complete, reliable, innovative, efficient and effective Smart Mobility. It is a smart mobility that can change the public's mindset about public transportation use, and thereby considering it as a necessity. The measures taken are to provide accessibility, to increase the number of BST corridors, to increase feeder number, to develop transportation service with agglomeration scale around Surakarta City through inter- region cooperation.

Conclusion

In the attempt of bringing Smart Mobility into reality in Surakarta City, there are four planning strategies considered as very strategic. The result of analysis shows that there are two implementation strategies: diversification and aggressive strategy. Diversification strategy involves synchronization and cooperation between central government in the form of giving public transportation operational fund grant and Provincial Government in developing agglomeration transportation. This strategy implementation includes providing smart public transportation (BST and Feeder) and agglomeration transportation (TransJateng). Meanwhile, aggressive strategy includes 1) the strategy of intensifying E-Government by improving ICT. Strategy implementation is accomplished through intensifying e-Gove by developing public transportation IT in Buy the Service scheme using Teman Bus application. 2) Strategy of reinforcing the inter-mode transportation integration. This strategy is implemented through strengthening the integration of inter-mode transportation by means of improving the accessibility of public transport (BST) with feeder and agglomeration transport (TransJateng). 3) The Strategy of developing strategic plan is conducted with Smart City Master plan through improving the service quality emphasizing on Smart Urban Service, i.e. improving the smart, reliable, and accessible public transport using technology ware. This strategy implementation focuses on the

improvement of Smart Mobility by improving service quality and accessibility of public transportation.

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