THE IMPACT OF SHOPPING CENTER DEVELOPMENT TOWARDS THE TRAFFIC SURROUNDING (A CASE STUDY IN JAVA SUPERMAL SHOPPING CENTER IN SEMARANG CITY)

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Abstract: Semarang has more than one million people that need shopping centers as public facilities. There are more or less 15 big shopping centers in Semarang in 2004. Wherever the shopping center is built, the crowded traffic environment is always there. The developers build a building without considering pedestrian areas and the traffic around it. Traffic jam and the society's pattern of thinking are the main problem. The solutions of those problems are needed. Among other things are engineering and management traffic, traffic regulations, and the regulations of shopping center development, socializing regulation enactment for public space users, improving the discipline of the society and public transport drivers and also training for the officials.

Key Words: Shopping Centre, Traffic Jam, Public Space User, Traffic Engineering, Traffic Management.

1. INTRODUCTION

The population of Semarang reaches 1.309.667 (Semarang Dalam Angka, 2000). This number of population has brought Semarang on the line of Metropolitan cities. As one of Metropolitan cities, Semarang cannot avoid the influence of industrial development which produces consumption goods that are mass produced, on regional, national and national levels. Moreover, with more than one million people, Semarang is very potential for the marketing of consumption goods. Therefore in the most densely area, the center of the city, a number of facilities such as shopping centers can be found.

The needs of shopping centers have result in the development of many shopping centers in Semarang. Up to the year of 2004, there have been at least 15 shopping centers in Semarang. Even, in November 2000, two big shopping centers were officially opened at the same time Java Supermall and Ada Department Store (Jl. Setiabudi). In 16 May 2001, Makro shopping center was officially opened. In the end of 2004, while this paper is being written, a new shopping center in Peterongan area is being built.

The building of new shopping centers always creates problems dealing with the surroundings. Many street vendors appear even they use some parts of the main street to conduct their activities. The street looks sorrow. The development of new shopping centers also always invites people from high, middle and low class society to come by using various kinds of means of transportation. The high-class society usually comes by their private cars, the middle and low classes usually by motorcycles or public transports such as taxi, mini public transport (a very small capacity bus, under 12 passengers) and tricycles. The traffic users use the public space as they like since there is not enough and comfortable place to drive and park the vehicle whereas the development of the shopping centers do not consider the needs of public space area for pedestrian and traffic users.

The problems and the conditions mentioned above need special attention not only from the government but also from people. The solutions of these problems will be taken in a case study of Java Supermall Semarang and its area surrounding. The consideration of taking Java Supermall as a case study object among other things is that many problems relating with the existence of Java Supermall as a shopping center such as problems of traffic jam, street vendor activities around Java Supermall, problems of pedestrians and problems of traffic regulations appear.

Base on the above description, the study is then formulated to identify the following questions:

- 1. In which part of Java Supermall area that has the most crowded problem?
- 2. What makes traffic jam occur around Java Supermall shopping center area?
- 3. What social cultural factors that make people conduct their activities in any place they like?
- 4. What are the solutions of those problems?

2. LITERARY REVIEW

The development of shopping center cannot be separated from the problems, which come along with. The most possible cause is the power of attraction brought by the shopping center development itself and the visitors. The coming of the visitors makes the activities centered in certain area, which sometimes bring about traffic jam. In this chapter, some literary about the attractiveness of shopping center development, public space user, traffic arrangement and problem solving alternative will be discussed.

2.1. THE ATTRACTIVENESS OF SHOPPING CENTER

Beddington (1982:28) defines shopping center as a group of shops consisting of outlet of shops which are bought or rented, whereas Hariyono (2002:19) says that shopping center is a group of commercial or retail shop building which offers many comforts for the visitors. Shopping center is usually completed with many facilities for recreation and community center which are able to revive the city.

Beddington (1982) argues that the merging of the functions of shopping and recreation will bring about a synergy - an activity that has a mutual benefit. Sumarsono (1993:20-21) states the benefits of the merging of the two functions gotten by the businessmen:

- a. Improve the potential efficiency.
- b. Lessen business risks resulting from the up and down condition of economic and the number of consumers or visitors.
- c. Revive situation and improve competition.
- d. Efficiency in providing facilities, decreasing the percentage of operational fee and improving income.

e. The profit surplus resulting from the merging of two potential functions is a valuable asset, which can be used further for its development.

For visitors, this new concept of shopping is very beneficial because of time, expense and energy efficiency. Visitors can do various activities and fulfill their needs of goods and services at the same place. People from big cities tend to do more efficient, fast and easy activities because of their limited spare time. Therefore, the development of public facilities such as shopping center is very substantial for the people.

Moreover, the existence of the public facilities most of the time brings about multiplier effects. Rahardjo (1982:36) agrees that some certain facilities need a center facility. In other words, the presence of a shopping center as a public facility is able to create other facilities and activities around it. In Semarang, the activities that come after the presence of public facility center are street vendors, since some people in Indonesia work in informal sectors, and parking because most of the people prefer private vehicle to public transport. Furthermore, the demand on public transportation is increasing, whereas the means for the transportation is limited. This condition creates big problem of traffic jam.

2.2. PUBLIC SPACE USER

According to Mulyani (1999) public space consists of City Park, green space city, pedestrian area and other open spaces, which can be used by public. Public space around the shopping centre usually consists of pedestrian sidewalks and road or highway. The people of Semarang usually use the public space for informal sector activities.

As it has been mentioned above (2.1.), the presence of shopping centre is able to create other activities such as street vendors. This phenomenon occurs because the majority of Semarang citizen cannot enter formal sectors. Other phenomena, the citizen of Semarang prefer privat vehicle as a means of transportation to public transport. The center of activities that is concentrated in certain area causes problems such as parking and traffic jam.

The other cause is that some people in Indonesia still have mystical pattern of thinking. It also happens to the people in Semarang city. This pattern of thinking creates a communal type of society. The Society conducts their activities together in a certain area. People feel that all the things in the public area are theirs. Because of it, they do everything in any place they like. They become street vendors and start their business without considering the needs of other people such as pedestrian and traffic user. They park and turn the vehicle everywhere they like.

The society in Semarang is varied. It consists of three classes: high, middle and low classes. They also use different kinds of transportation system. Those who come from high class society usually use car and taxi. The middle class usually uses motorcycle, becak (three-cycle), mini public transportation, minibus, bus and taxi. The low class use bicycle, motorcycle, becak, mini public transportation, minibus and bus as their means of transportation.

Wherever a new shopping centre is built, an environment around it is always crowded. Because of the communal type of society, the developers build a building without considering pedestrian area and traffic user around it. People come in and out the shopping centre every time. Vehicles, which are parked in front of the shopping centre, make the road looks narrow and crowded whereas the building and traffic regulation are not available. The government does not give enough attention to the society's needs.

2.3. TRAFFIC ARRANGEMENT

Like in other big cities in Indonesia and in other developing countries, the people of Semarang like to use their own private vehicles such as cars and motorcycles as means of their transportation to facilitate them in doing their activities, for example going to work, recreation, and shopping.

Generally, the increasing number of people having private vehicles especially cars indicate that the standard of living in the city is also increasing. However, the use of private vehicles gives negative impact for traffic users. The increasing number of private vehicles does not only destroy the road but also brings about air and sound pollution.

The problem of traffic jam, according to Tamin (1996:1) usually occurs in cities with more than two million people such as Jakarta, Surabaya, Medan and Bandung. Semarang, with about 1,4 million people in the near future will have the same traffic problem if this problem is not bandied well.

The government overcomes the problems of transportations by more developing the road capacity through traffic engineering and management has done some efforts. Although the number of public transport facilities has been added and the regulation for public transports efficiency has also been enacted, the problems of traffic jam still cannot be avoided. This is because the improvement of the means of transportation is not getting along with the increasing need for transportation.

Tamin (1996:2) argues that in order to get better solutions for the problems, the macro transportation system should be divided into smaller sub system including : 1) the need of transportation, 2) media and infrastructure of transportation, 3) engineering and management traffic, and 4) institution.

The need of transportation as one of the sub system constitutes activities of land use which consists of the patterns of social, economic, cultural activities from which the need of transportation for daily activities is very essential. Interactions between the need of transportation and the need of media and infrastructure will result in the movement of people and goods in the form of the movement of vehicles and pedestrian. A system of movement which is safe, comfortable, fast, cheap and suitable with its environment can be existed only if the system of the movement is regulated by good traffic engineering and management. Most of the problems of traffic jam in big cities in Indonesia are usually caused by the system, media and infrastructure of transportation, traffic engineering and management, institution will influence each other in arranging traffic environment in the street.

2.4. THE ALTERNATIVE OF THE SOLUTION

In fact, the problems of traffic jam can be overcome through the participation of all aspects of the government and society since these problems become their responsibilities. The problems of traffic jam are usually caused by the high level of migration to the city and the increasing number of private vehicles and public transports which are not efficient. However, the most crucial problem is that the media transportation supply cannot come along with the increasing needs of transportation.

Tamin (1996:4) mentions that in order to balance the growing number of transportation media and the need of transportation, the following actions can be taken:

- 1. The effort to minimize the growth level of transportation needs through : a) the development of satellite city to lessen the level of urbanization to the city, so that the high stream movement of the people can be minimized ; b) management of activity centers so that the movement is not centralized only in certain area. This effort can be done through the process of dividing into administrative units or districts and the regulations of opening hour of the activity centers.
- 2. The efforts to improve transportation infrastructure especially those to handle infrastructure facilities problems which do not function properly through: a) the development of new roads such as Infra-Urban Toll Road, Outer Ring Road to join two different zones whose traffic level is high. b) the improvement of the infrastructure capacity by road widening and road intersection repairing, the development of intersection is not on the same surface to avoid conflict points of the vehicles passing it, the development of alternative road which comes out highway network system and the building of crossing bridge for pedestrian and vehicles to minimize the cutting of traffic stream.
- 3. The efforts to smooth the traffic through the policy of good traffic engineering and management. This can be done by improving traffic light system which regulates different traffic fluctuation within one hour, one day even one week to minimize the lateness and traffic jam. This system is known as an Area Traffic Control System (ATCS). The improvement of the Transport Network Planning including railway system, highway, buses, Mass Rapid Transit to support the integrated land public transportation needs to be done. Besides, the improvement of transport network planning can also be done through transport management such as parking policy, facility improvement for pedestrian and the implementation of traffic restrain towards the use of private vehicles.

In micro traffic jam case, there are parking policy and public transport priority. Parking area is defined as a place where vehicles may stop for safety. Parking area should be able to reach easily and not too far from the purposed destination. If the parking area is difficult to reach, the owners of the vehicles will be unwilling to stop and leave their vehicles. If the parking area is too far, then the owners of the vehicles will turn their destination away.

Parking policy is one of the efforts done to improve the road capacity. The on-street parking policy is not efficient since it reduces the road capacity. The unorganized management of parking will result in traffic jam. The off-street policy - the development of parking area building, parking regulation, the implementation of quite expensive parking ticket in certain area and fine for parking violation might be the best answer since it is getting along with the efforts in minimizing the use of private vehicles.

The purpose of giving priority to the public transport is to reduce the time of traveling and to make public transports be able to attract more passengers. The city bus with bigger size and the use of double deck bus will help to accommodate more passengers and therefore lessen the time of traveling and make more rooms for other public space users. Taxies are only allowed to be taken on the routes in which public transports do not reach.

In order to attract more bus users, some actions can be taken such as developing special bus line by freeing parking areas. However, this system will take some of private vehicles lines. The priority for buses in intersections can be done by giving electronic signals from bus to traffic limits by which the green lights will be on when the bus approaches. But this system somehow will destroy the traffic cycles. Developing better and more comfortable pedestrian sidewalks will help attracting more pedestrians to walk to the bus stop and take the bus.

3. RESEARCH DISCUSSION

This section explains about the methodology, subjects and analysis.

3.1. Methodology

There are four points will be discussed in this study: 1) in which part of Java Supermall supermarket area that has the most crowded problem; 2) what makes the traffic jam happened around Java Supermall Shopping center area; 3) what social- cultural factors that make them conduct their activities; 4) what are the solution of the traffic jam problem around Java Supermall shopping center area?

To answer the above problems, the researcher will apply qualitative approach. The first question will be answered by conducting a passing observation during peak hours which are between 15.00 to 19.00 P.M. From here, the saturation point of the traffic can be determined by doing numerical classification and analysis of Volume Capacity Ratio (VCR). According Saxena (Setijawarno, 2001) if the VCR is more than 0.85 the street can be classified in some levels as stuck. Numerical classification is also used to answer the second question so that the causes of traffic jam can be identified. To answer the third question, social observation, will be conducted. The answer of the fourth problem can be gotten by considering traffic conditions, the behavior of the society and the institution.

3.2. Subject

This study takes a case study of the street in front of Java Supermal Shopping center, Semarang that is Jalan MT Haryono because before Java Supermal Shopping center was built, this street was not as busy as it is. Street vendors, kiosks and traffic jam were not as crowded as what can be seen now.

Jalan MT Haryono spread out from north to south with about 18 meters wide. Java Supermal faces to the west. It has 95 outlets and tenants and can be categorized as Regional Shopping Center since according to Chiara (1983:577) shopping center with 50-100 shops is categorized as Regional Shopping Center. Many visitors come from out of Semarang. Before Java Supermal had been built, there were 119 trading and service activities around it. Soon

after Java Supermal was built there were 150 more units built consisting of formal traders (17.33%), formal services (14%), taxi services (18.67), tricycle services (14.67), informal traders (30%) and informal services (5.33%).



Figure 1. Java Supermal Shopping Center and Its Surrounding

The street in front of Java Supermall has two different lines each of which goes on the left side. This street is classified as a secondary ring road. The street going to the south direction is ascending and hilly. The transportation directing to the south, intercity bus, mini bus, mini public transportation (bus type which has less 12 passenger), truck, mini truck, taxi, private car and motorcycle, usually go to out of town. The majority of the transportation are cars, motorcycles, mini public transport, mini buses and buses. Mini buses and buses are taken for out of town destination.

Transportation directing to the north consists of mini buses, mini public transport, mini trucks, taxies, cars, motorcycles, bicycles and tricycles. They go downtown with flat surface. Java Supermall shopping center is trying to implement off-road parking policy. When there are only few numbers of visitors, about 95% of them who use their private vehicles, park their vehicles in the provided parking lot inside the building. When the visitors are a lot, only 80% of them park their vehicles in the provided parking lot inside the building. The rest like to park their vehicles outside the building. From 9.00 A.M to 15.00 P.M., the visitors are allowed to park their vehicles in front of Java Supermall, but after that they are not allowed to do so since the place is occupied by the street vendors.

3.3. Analysis

There are four analyses in this study. The first explains about part of Java Supermall shopping center that has the most crowded problem. The second explains the cause of traffic jam around Java Supermall shopping centre area. The third explains why people conduct their activities everywhere they like. And the fourth explains the solution of the problems traffic jam around Java Supermall shopping centre area.

The first analysis tells about the most crowded traffic. The crowded traffic occurs in front of the entrance of Java Supermall Shopping Centre. It can be identified by measuring the street service value in Volume Capacity Ratio (VCR). In order to get the value, the calculation on the number of vehicles, the time of traveling, and the time needed to start leaving from the traffic jam are established. The VCR in front of Java Supermall entrance is identified as follows.

Time	Vehicle from South	Vehicle from North	Total	Capacity	VCR from South	VCR from North	VCR Total
15.00-16.00	1640,02	1317,18	2957,2	2140,32	0,7662499	0,6154126	0,690831
15.15-16.15	1657,18	1521,82	3179,0	2140,32	0,7742674	0,7110245	0,742646
15.30-16.30	1744,55	1767,65	3512,2	2140,32	0,8150884	0,8258812	0,820485
15.45-16.45	1793,56	1796,83	3590,39	2140,32	0,8379868	0,8395147	0,838751
16.00-17.00	1812,28	1885,86	3698,14	2140,32	0,8467332	0,8811112	0,863922
16.15-17.15	1789,82	1909,37	3699,19	2140,32	0,8362394	0,8920956	0,864168
16.30-17.30	1662,25	1750,28	3412,53	2140,32	0,7766362	0,8177656	0,797201
16.45-17.45	1539,57	1627,28	3166,85	2140,32	0,7193177	0,7602975	0,739808
17.00-18.00	1359,15	1463,57	2822,72	2140,32	0,6350219	0,6838090	0,659415
17.15-18.15	1167,63	1274,43	2442,06	2140,32	0,5455399	0,5954390	0,570489
17.30-18.30	1121,83	1225,72	2347,55	2140,32	0,5241412	0,5726807	0,548411
17.45-18.45	1183,24	1238,74	2421,98	2140,32	0,5528332	0,5787639	0,565799
18.00-19.00	1347,89	1226,77	2574,66	2140,32	0,6297610	0,5731713	0,601466
Average			3063,42	2140,32	0,7122936	0,7189974	0,715646

Table 1. Volume Capacity Ratio (VCR) Analysis on Street in Front of Java Supermall (smp)

Table 1 explains that the saturation point between 15.00 to 19.00 P.M. is approximately 0.715646 which is less than the standard of VCR (0.85). In other words, the street in front of Java Supermal shopping center is not saturated enough. However, between 16.00 to 17.00 and 16.15 to 17.15 the saturation point is above standard (0,86) which means that from 16.00 to 17.15 the street in front of Java Supermall is saturated.

The VCR value saturation from north (0,8811112 and 0,8920956) is bigger than VCR value from south (0,8467332 and 0,8362394). Based on this value, it can be concluded that the traffic from north is busier than that from south. The VCR value from north is bigger than the threshold of saturation limit (0.85), whereas the VCR value from south does not reach the threshold of saturation limit. In other words, the saturation in front of Java Supermall is more likely caused by the traffic coming from north.

At about 16.00 to 17.15 the number of vehicles coming from north is about 416.27 - 582.76, with the time need for traveling 8.14 - 15.29 seconds and adjournment time is 12.43 - 19 seconds. The number of vehicles from south at the same time is 405,47 - 474,32 with the traveling time 6.29 - 25.57 seconds and adjournment time is 15-23.33 seconds. The adjournment time from south is sometimes longer than that from north because the traffic from north sometimes takes 7 times in 15 minutes; whereas the traffic from south only takes 5 times in 15 minutes therefore the adjournment time from north is more frequent than that from south. This

fact supports the statement that says traffic stream coming from north is busier than that from south

The second analysis talks about the cause of traffic jam. From the first analysis, it can be seen that the vehicles from north becomes the main factor which makes the street in front of Java Supermall saturated. There are some reasons that come behind. The first is that the number of public transports from north is more than that from south. Many mini public-transport coming from north take passengers to the sub terminals, mini buses take passengers to the regional areas and public buses take passenger out of town. From south, it can be seen that there are only few kind means of transportation, mini public transportation taking passengers downtown and mini buses taking passengers from south suburb route. Since the public transports from north are more varied and frequent, there are a lot of the would-be passengers swarm over following the traffic from north. Because of this, many public transports pick up and drop their passengers in front of Java Supermall.

The second reason is that between 16.00 -17.15 P.M. the traffic is very crowded since it is the time when Java Supernal and other shops' employees change their working schedule shifts. Some of the employees come from Semarang and the others from out of Semarang therefore various kinds of city and inter-city buses stop and take the passengers in front of the entrance gate of Java Supernall, although there is a police station near Java Supernall.

The passengers like to stop the bus next to Java Supermal because : 1) there is enough vacant space around it, 2) taking the bus in front of Java Supermal makes the passengers easier to get the seats rather than taking the bus in the bus stop where more passengers get in the bus which is stop on the south of Java Supermall building. 3} the location of the bus stop which is already occupied by street vendors is not strategic and very narrow which (figure 2).



Figure 2. The Bus Stop Is Not Used Appropriatel.

The third reason, many cuttings of the street are done by both vehicles and pedestrians. Vehicles from south direction, especially private vehicles like to cut the street to enter Java Supermall area so that the traffic stream from north is disturbed (figure 1, the red arrows show that the vehicle from south cut the traffic stream from north, and figure 3). The vehicle want to cut the street fisrt each other. There was once an almost accident of three cars within 5 minutes. Besides, many pedestrians who cross the street from one side to another side take a part in disturbing the traffic stream from north to south.



Figure 3. Vehicles Coming from North and South Turn and Cut Their Directions in Front of Java Supermal.

The fourth reason, the public space which is used for traffic is getting narrower since the establishment of Java Supermal. There was a public space shrinkage of 6.66% that is from 14.521.88 m² to 12.621.88 m². It happens because Java Supermall uses the whole area for its building whereas the old building, billeting of police office is provided for pedestrians and traffic.

The fifth reason, since Java Supermall was built, the numbers of street vendors are getting higher and it makes the space for public - pedestrian and traffic, reduces 8.32% that is from $12.476.88 \text{ m}^2$ to $11.438.88\text{m}^2$. The transportation media which becomes narrower looks very contradictory with the increasing needs of transportation facilities. This condition leads to the traffic saturation along the street in front of Java Supermall.

The sixth reason, street vendors begin their business activities in front of Java Supermall among 16.00-17.15. These activities take some parts of the public space since the buyer parks the cars and motorcycles near where the street vendors sell their products. The seventh reason is that the traffics from south during peak hours must get through adjournment time which is quite long because of the traffic light.



Figure 4. Evening Street Vendors Begin Their Businesses. Cars are Parked in front of Their Stalls

The third analysis discusses the social and cultural backgrounds of the people that support them do something. From the second analysis, it can be seen that people do not wait for the bus they are going to take in the bus stop but anywhere they think comfortable. Most of the people do not have traffic awareness that may disturb their environment. There is no enough regulation and the police officers do not do their jobs as they are supposed to do. The fact that street vendors conduct their activities everywhere they like is supported by the communal society. Peeursen (1988) says that people can be separated by three patterns of thinking. There are: 1) mythical pattern of thinking; 2} ontologism pattern of thinking; and 3) functionalism pattern of thinking. The ancient society tends to have a mythical pattern of thinking. This pattern of society does not consist of groups of society, but they live communally. They do everything in every place without limit. Meanwhile, the middle century of society tends to have an ontological pattern of thinking. They have many groups of society. Each groups of society live separately. Lastly, the modern society has a functionalism pattern of thinking. They have any groups of society, but each group of society has a relation.

Some people in Indonesia still have a mythical pattern of thinking. They have just obtained their independence. In the colonial period they lived with an agrarian life pattern and had a mythological pattern of thinking. After they became independent, they were amazed with the modernization, but their attitudes still follow agrarian way of life which has a mythical pattern of thinking.

It also happens to the people in Semarang city. The mythical pattern of thinking creates a communal type of society. The society conducts its activities together in a certain area. People feel that all of the things in the public area are theirs. Because of it, they do everything in any place they like. They become street vendors and open a shop without considering the needs of other people such as the pedestrians and traffic users. They park and turn the vehicle everywhere they like. The condition becomes complex when its society is various, consists of high, middle and low classes. They come and use different kinds of vehicles and have different activities in the same area around shopping center likes Java Supermall.

The fourth analysis describes the solutions of the traffic jam problems around Java Supermall shopping center area. From the first analysis it can be explained that the location, which has the most crowded traffic, is in front of Java Supermall entrance gate. The second analysis says that the causes of the crowded and traffic jam are: 1) transportation media which is getting narrower whereas the need of transportation is increasing; 2) it is no clear regulations, no police officers with firm attitude, no discipline society and no other alternatives can be done.

From two problems above, it seems that the problems of transportation media which is narrow can not be solved by just widening the street because the cost of land exemption is very high and many people will lose their jobs. Therefore, traffic engineering and traffic management will be good solutions to the problems.

The Problems of traffic jam according to Tamin (1996:1) usually appear in cities with more than two million populations such as Jakarta, Surabaya, Medan and Bandung. Semarang with about 1.4 million people will soon have the same traffic problems if it is not managed properly.

The efforts that can be done to solve the traffic problems in front of Java Supermall are: 1) improving traffic engineering and traffic management, 2) regulating the efficiency of public transports 3) institution. The development of a new street and the addition of public transport are not needed for the time being since the traffic saturation happens only in certain time.

Determining the right traffic regulation and street using can do traffic engineering and traffic management. **The first regulation** should say that intercity buses and mini trucks directing to

south are forbidden passing in front of Java Supermal, especially during 16.00 to 17.15 because actually this street is classified as a secondary ring road. Intercity buses and mini trucks have to pass toll road, which has been provided, through suburb (for the time being, the toll road is only used by trucks and private cars going out of town). Passengers intending to go out of town must take city public transport to bus terminal or sub terminal. From the bus terminal or sub terminal, the passengers can take the bus to go out of town. City public transports are now available so there is no reason to forbid the intercity bus to pass in front of Java Supermall. This regulation will be able to minimize the traffic jam since most of the traffic jam happened because of the bus taking or dropping the passengers in front of Java Supermall.

The second regulation should also be established that is forbidding both passengers and public transports taking and dropping passengers anywhere. Fining and giving sanctions for public transport drivers for taking and dropping passengers not at the right place, the bus stop, should be enforced to minimize the traffic problems. Bus stop has to be used efficiently. Therefore the bus stop should be made comfortable. Comfortable sidewalks with leafy trees will attract the would-be passengers waiting in the bus stop. The sidewalk available in front of Java Supermall is only 20 cm width therefore people's activities take part of the main street and of course it will disturb the other street users.

The third regulation is that private entrepreneurs provide wide enough sidewalks and the city governments buy some private land in an adequate price for sidewalks or street needed. This regulations need to be implemented because the private sectors (the owner of shopping center and the tenant) also get the benefit from the society.

The fourth regulation, during peak hours which causes traffic jam (15.30 - 17.30) vehicles across Java Supermall are not allowed to cut the street in order to get into Java Supermall. They have to take the turn on the next crossroad. For this reason, emergency-blocking crossing needs to be put to hinder vehicles crossing the streets (see figure 1. The red arrow in front of Java Supermall describes this problem).

To overcome the problems of traffic adjournment from south, which is accumulated in the north traffic light, an improvement on the Area Traffic Control System (ATCS) is needed. ATCS is used to regulate different traffic fluctuation within an hour, one-day or one week in traffic lights. Parking policy on road traffic with different tariff between busy and non-busy area can be applied so that the parking area near the busy area will not experience saturation.

Traffic restrain policy towards the use of private vehicles seems difficult to be applied because the media and the city infrastructure have not been appropriate yet and the gap between high, middle and low classes society is very sharp. Double deck bus can be one of city bus alternative to improve public transport capacity. However, since the street to the south is ascending and hilly, the use of double deck bus is quite impossible. Something can be done is that the use of mini public transport is changed with the use of mini bus, midi bus or bus so that more passengers can be taken, and the use of transportation media can be reduced.

The improvement on the Transport Network Planning by using railway line, Mass Rapid Transportation, the use of new ring road, and the development of satellite city are expensive solutions for these problems. Giving priority for public transport is still difficult to be done because of the narrow streets and un-discipline street users.

Another solution to this problem is socializing public space using discipline, which does not disturb other users. Traffic officers need to uphold the regulation to avoid traffic jam. Socialization and regulation enactment have to be done considering that Semarang people are very communal and have not known the discipline of using public space in a modern way. The implementation of traffic engineering about and management, regulation enactment and the discipline socialization will bring the more comfortable atmosphere for both visitors and street users around Java Supermall.

Another solution can be done is giving training on the city transportation for government and private employees to be able to manage the traffic. The readiness of government and private institution to manage the traffic is absolutely in need because the transportation problems, which often occur, are not caused by the transportation infrastructure and facilities, but because of the incompetence of those who deal with it. Many center of activities built without considering the transportation and traffic management. Therefore, before a development of a new center of activities, the analysis of traffic intact should be conducted.

4. CONCLUSION

The above data of research shows that the existence of central activities likes Java Supermall shopping centre in Semarang city brings about some crowded traffic. This is caused by communal life-style of Semarang community. They feel that public area is theirs. They do everything onto public area as vendor street, pedestrian user and traffic user. They do everything where they like, such as taking and dropping passengers done by public transport drivers, turning on the forbidden area done by private car drivers, unloading things on the street.

Regulation for traffic, street users and the owner of shopping center must be enacted. Regulations for traffic users consist of taking and dropping passengers in the appointed bus stop and sanctions will be given for those who break it. Bus stop should be located in a strategic and comfortable location. Intercity buses must take primary ring road during peak hours. Mini public transportations as city public transports are changed with bigger size vehicles to save the street media and the number of operating public transport.

During the peak hours, vehicles from the other side are forbidden to turn to Java Supermall shopping center. They have to turn over the next cross-road which is not so far located from Java Supermall shopping center. Different parking ticket tariffs in different zone can be implemented. A discussion between city government and the owner of shopping center about the impact of shopping center development towards the traffic surrounding should be done. The result of the discussion will be about the arrangement of public space so that the traffic user will feel comfortable.

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