

**AN ASSESSMENT OF THE RAIL TRANSPORT SYSTEM (REPUBLIC ACT NO. 7718 – “BUILD-OPERATE-TRANSFER LAW”): ITS RELATION TO THE ECONOMIC DEVELOPMENT OF THE COUNTRY**

**Dr. LOURDES P. JUSAY**

Eulogio “Amang” Rodriguez Institute of Science and Technology, Philippines

Email address: jusaylourdes@gmail.com

**ABSTRACT**

Rail transport is the major means of transportation anywhere in the world. This is a fast means of transportation a person can take because of the kind of lifestyle people have at present. Developed as well as underdeveloped countries are using rapid transit system as a mode of their transportation which help them.

A country like the Philippines needs a rapid transit system in its metropolis because of the devastating condition of its transportation system. It carries a huge number of passengers from all walks of life compared to a land transportation like the use of cars and buses. Moreover, it takes only few minutes to take a person to its destination. This mode of transportation paves the way to someone to become mobile individual with the numerous activities that he or she has in a day.

The researcher is interested in conducting a study about the present rail transit that is being used in the country. The study will be conducted to determine the level of effectiveness of managing the transit system in terms of its operation and maintenance. The data will be analyzed by using the data that will be gathered from the respondents. It is hoped, therefore, that the results of the study will help the government address the growing transportation problem.

**Keywords:** rapid transportation system metropolis light rail transport rapid

**Introduction**

Effective rapid transit system is a vital component of any developing country at present. It speaks of its economic development. A country that has a rapid transportation like rapid transit system is said to be coping with the demands of being a progressive country. A

developing country may choose to use Build-Operate-Transfer (RA 7718) in the furtherance of its infrastructure programs. It is a given fact, that developing countries may not have the capital resources to finance all its projects. One of the options that any country may have is the Build-Operate-Transfer scheme. The expenses that may be incurred will not be directly shouldered by the country. Instead, its partner in such endeavor will be the one to shoulder it. The partner company will manage its operation for a certain period and the supervision to the government. Thereafter, the project will be turned over to the country for its operation, maintenance and supervision.

The country that has been enjoying the fruits of the Build-Operate-Transfer scheme is Malaysia (Palapus and Hanaoka, 2009). It does not only maximizes the BOT scheme. It even integrated the bus-rail services to improve the use of public transport. Hence, Malaysia is taking off from its stature as a developing country in Asia. Hong Kong, South Korea, and Singapore are the countries that enjoyed the benefits of the rapid transport systems. Evidently, they have a stable economic conditions in their country. They use rapid transport system with their human capital resources since they believed that these people are their partners in their development. They have an improved and full functioning rapid transit system. They have an underground and ground rapid system in the metropolis which lessen their problems of transportation. As a consequence, they are said to be the developed countries in Asia at present.

The economic development of the country is dependent primarily to the kind of transportation that it used in transporting the products that they got from the rural provinces. It facilitates the means of transportation needed to make the country a developing one. Once the country has an improved system of transportation, it follows that it has a stable economic condition that people may enjoy. Similarly, the Trans-European Network System (TENS) identified the following objectives in the use of high speed transport road and rail network: maximizing transport efficiency, improving transport safety, environmental improvement, strategic mobility and environmental economic improvement, implementation of the single market and contribution to external dimensions such as network development, integration and cooperation (Page, 2009).

The Philippines is not exempted in using a rapid transit system. As early as 1980s, it envisioned to construct a transit system that would alleviate traffic in the metropolis. Indeed, the first line of the Metro Light Transit System was operational in early 1980s which

eased the problem of transportation along Taft Avenue in the heart of Metro Manila. LRT line 2 was constructed to address the problems of the commuters from East to West of Metro Manila. And MRT Line 3 was built to cater to the needs of the people from north to south of Metro Manila which ran from Epifanio de los Santos Avenue (EDSA).

LRTA manages LRT line 1 and 2 while MRT -3 (formerly LRT 3) is being managed by Hong Kong – based EDSA LRT Corporation now Metro Rail Transit Corporation (MRTC). Both the LRTA and MRTC were awarded by the Department of Transportation and Communication (DOTC) the build-operate-transfer contracts pursuant to RA. No.7718 (otherwise known as Build-Operate-Transfer Law). This gave them the authority to acquire ownership of the system and assumed administrative functions while the DOTC took charged of the technical supervision.

From the time the three (3) lines were operational, they addressed the transportation problem in the metropolis. Initially, the rapid transit system was not patronized by the commuters. Like any other projects, the rapid transit system introduced in the country was bombarded by many oppositions including but not limited to the ticket price to its maintenance system that led to accidents of the commuting public that recently happened.

It is, for this reason, that the researcher made an assessment of the rapid transit system (Republic Act No. 7718 – “build-operate-transfer law”): its relation to the economic development of the country. The researcher believed that economic development of the country is greatly influenced by the rail transit system that most of the people in the country used in transporting themselves from their home to their work stations. Majority of the commuters were gainfully employed. They were the employees who used regularly the rapid transit system.

A closer look of the relation of the rapid transit system and the Philippine’s economic development must be given a priority because the employee’s productivity is affected when they were tardy reporting in the office notwithstanding the psychological condition when they arrived in their work place. This, in turn, contributed to the low productivity of their company. Thus, the researcher intended to make an assessment of the rapid transit system and its relation to economic development of the country. The researcher was guided by the following questions: (1) What is the demographic profile of the respondents in terms of: age, gender and employment status? (2) How do the respondents assess the rapid transit

system in terms of its operation and maintenance? (3) What program(s) may be suggested to improve the rapid transit system? The researcher used random sampling in the study. The study used 300 respondents who were regular commuters of the rapid transit system.

### **Body**

The respondents of the study were the 300 regular commuters of the rapid transit system. They were chosen randomly while waiting to take their ride on the transit system. Majority of the respondents were females with 58 % and the remaining were males with 42 %, age bracket ranged from 30-35 years old, and most of them are working with 85 % and the rest are entrepreneurs and private individuals who took their ride on the train from 5-8 in the morning.

Table 1

Effectiveness of the Rapid Transit System in terms of Operation

<b>Criteria</b>	<b>Weighted Mean</b>	<b>Verbal Interpretation</b>
1.The rapid transit system uses a single journey ticket which is dependent on the destination and is reasonable and affordable to the riding public and stored-value ticket	3.16	Moderately Effective
2.The rapid transit system uses the single journey ticket on the date of the purchase and the stored-value ticket with three months validity from the date of first use.	2.88	Moderately Effective
3.The rapid transit system ticket is computed based on distance-based fare structure amounting to 15-30 pesos depending on the destination of the commuter.	2.42	Slightly Effective
4. The rapid transit system does not charge children whose heights are below 1.02 meters (3 feet) equivalent to the height of a fare gate.	3.96	Highly Effective

5. The rapid transit system prohibits commuters who are visibly intoxicated, insane and/or under the influence of controlled substances, carrying flammable materials and/or explosives	2.32	Slightly Effective
6. The rapid transit system deploys K9 bomb sniffing dogs to some stations for security purposes.	2.4	Slightly Effective
7. The rapid transit system maximizes the use of closed-circuit television inside all stations to monitor suspicious activities and to assure safety and security aboard the line.	2.32	Slightly Effective
8. The rapid transit system runs its operated trains approximately from 16-18 hours from 5:30 a.m. to 11 p.m. every weekdays and 12-16 hours from 5:30 am to 11:00 pm every week ends.	2.2	Slightly Effective
9. The rapid transit system operates through a 4-5 minute headways from 5:30 am to 11:00 pm every weekdays and 4-6 minute headways from 5:30 am to 11 pm every weekends or earlier as the case may be.	2.5	Slightly effective
10. The rapid transit system implements an operating speed of 60-65 km/hr.	1.7	Slightly Effective
<b>General Weighted Mean</b>	<b>2.59</b>	<b>Slightly Effective</b>

Table 1 shows the effectiveness of the rapid transit system in terms of operation.

As can be gleaned from the table, item no. 4, “The rapid transit system does not charge children whose heights are below 1.02 meters (3 feet) equivalent to the height of a fare gate” got the highest weighted mean of 3.96 verbally interpreted as Highly Effective. This helps the

riding public economically when they had children during their journey because the commuter will not pay the children whose heights are below the specified meter. Item no. 1, “The rapid transit system uses a single journey ticket which is dependent on the destination and is reasonable and affordable to the riding public and stored-value ticket” and no. 2, “The rapid transit system uses the single journey ticket on the date of the purchase and the stored-value ticket with three months validity from the date of first use” obtained weighted means of 3.16 and 2.88 respectively interpreted as Moderately Effective. The commuting public favorably assessed the journey ticket and the stored-ticket wherein they will not be bothered to fall in line in getting their ticket every time that they will take their ride. Although there was no discount given for the stored-ticket, the commuters rated it as moderately effective so that they will not anymore waste their time to get their ticket if they are regular commuters of the system. This will facilitate their travel and help them reached their destination on time.

Items no. 5 to 10 were rated by the commuters as Slightly Effective with the obtained means ranging from 1.7 to 2.32. “The rapid transit system ticket is computed based on distance-based fare structure amounting to 15-30 pesos depending on the destination of the commuter” was rated with a weighted mean of 2.42 verbally interpreted as Slightly Effective. The commuters who were used the rapid transit system belonged to the lowest stratum of the society. Hence, the Php 15 – 30.00 was seen as expensive. This was lower than the bus charging. However, they still saw this as ineffective in their economic development. Item no. 5, “The rapid transit system prohibits commuters who are visibly intoxicated, insane and/or under the influence of controlled substances, carrying flammable materials and/or explosives” obtained a weighted mean of 2.32 interpreted as slightly Effective. The riding public seldom see such types of commuters in the rapid transit system because of the time element. “The rapid transit system deploys K9 bomb sniffing dogs to some stations for security purposes” got a weighted mean of 2.4 interpreted as Slightly Effective. With the numerous commuters during the riding period, bombs may not be seen as possible by the riders. The public’s primary concern was to get into the transit and reach their destination on time so that they will not be deducted the corresponding amount from their salary. They used the system to facilitate their time of travel. Thus, even though, they experienced discomfort using the rapid transit system, they sacrificed in order to get a ride. Item no. 7, “The rapid transit system maximizes the use of closed-circuit television inside all stations to monitor suspicious activities and to assure safety and security aboard the line” obtained a weighted

mean of 2.32 interpreted as Slightly Effective. Commuters were unmindful of the equipment installed in the station. The primary reason that they have in their mind was to get the fastest mode of transportation in order that they will be able to reach their destination notwithstanding the fact that they will only be in the train for few minutes. “The rapid transit system runs its operated trains approximately from 16-18 hours from 5:30 a.m. to 11 p.m. every weekdays and 12-16 hours from 5:30 am to 11:00 pm every week ends” got a weighted mean of 2.2 interpreted as Slightly Effective. The riding public knew the operational time of the rapid transit system. It can be deduced, therefore, that the great number of riders were lumped during the rush hours of going to their workplace and in going home. Moreover, they tried to catch up with the time interval of the transit in order for them not to be tardy in their work because item No. 8, “The rapid transit system operates through a 4-5 minute headways from 5:30 am to 11:00 pm every weekdays and 4-6 minute headways from 5:30 am to 11 pm every weekends or earlier as the case may be.” And item No. 10, “The rapid transit system implements an operating speed of 60-65 km/hr.” was rated as Slightly Effective by the commuters. They would want a faster speed for the rapid transit system since it has its own rail road. However, the rapid transit system, from time to time, is delayed due to the commuters’ faults.

Table 2

Effectiveness of Rapid Transit System in terms of Maintenance

<b>Criteria</b>	<b>Weighted Mean</b>	<b>Verbal Interpretation</b>
1.The rapid transit system regularly replaces outdated parts of automated Fare collection System	2.66	Moderately Effective
2. The rapid transit system maintains station building amenities including escalators, elevators, rest room, water supply, video monitor and supervisors and ticketing room	2.28	Slightly Effective
3.The rapid transit systemhas a complete set of equipment for emergency cases of nonfunctional coaches.	2.28	Slightly Effective

4.The rapid transit systemhas a signaling system with both for the coach driver and the commuting public.	2.04	Slightly Effective
5. The rapid transit system adopts a radio communication system to facilitate communication between the control center and train driver.	2.24	Slightly Effective
6. The rapid transit system has a CCTV Monitoring system that is being used to monitor passenger's movement for safety and surveillance purposes.	2.66	Moderately Effective
7.The rapid transit system uses public address system that is used to convey messages to passenger and station personnel.	2.3	Slightly Effective
8. The rapid transit system implements a well maintained PABX telephone system that insures internal as well as external connections with the aid of the auto attendant computer.	2.22	Slightly Effective
9. The rapid transit systemhas a Traction Supply System including traction Power System and Overhead Catenary System	2.14	Slightly Effective
10. The rapid transit system implements an every 8 <sup>th</sup> year general overhauling of the rail vehicles.	2.08	Slightly Effective
<b>General Weighted Mean</b>	<b>2.29</b>	<b>Slightly Effective</b>

Table 2 projects the effectiveness of the rapid transit system in terms of maintenance.

As shown in the table, item no. 1, “The rapid transit system regularly replaces outdated parts of automated Fare collection System” and Item no. 6, “The rapid transit system has a CCTV Monitoring system that is being used to monitor passenger’s movement for safety and surveillance purposes” got the same weighted mean of 2.66 verbally interpreted as Moderately Effective. The commuters saw these items as important in the economic development of the country. The rapid transit system, once maintained properly will become



serviceable to the riding public with the least cost that it entail. Thus, they regularly check the fare collection system. They also monitor those people who might have the intention to destroy it. They installed CCTV to check untoward incidents in the rapid transit system in the country.

All the other items in the maintenance of the rapid transit system were all rated as Slightly Effective with different weighted means. Item No. 2, “The rapid transit system maintains station building amenities including escalators, elevators, rest room, water supply, video monitor and supervisors and ticketing room” was given a weighted mean of 2.28, Item no. 3, “The rapid transit system has a complete set of equipment for emergency cases of nonfunctional coaches”, with weighted mean of 2.28. Item 4, “The rapid transit system has a signaling system with both for the coach driver and the commuting public”, with weighted mean 2.04, Item No. 5, “The rapid transit system adopts a radio communication system to facilitate communication between the control center and train driver,” with weighted mean of 2.24, Item No. 7, “The rapid transit system uses public address system that is used to convey messages to passenger and station personnel,” with weighted mean of 2.3, Item No. 8, “The rapid transit system implements a well maintained PABX telephone system that insures internal as well as external connections with the aid of the auto attendant computer,” with weighted mean of 2.22, Item No. 9, “The rapid transit system has a Traction Supply System including traction Power System and Overhead Catenary System”, with weighted mean of 2.14, and Item NO. 10, “The rapid transit system implements an every 8<sup>th</sup> year general overhauling of the rail vehicles” with weighted mean of 2.08.

Both the operation and maintenance of the rapid transit system in the country were assessed by the commuters as slightly effective with the weighted means of 2.59 and 2.29 respectively interpreted as Slightly Effective.

The following programs were identified by the commuters to improve the services of the rapid transport system: regular maintenance monitoring system of the rapid transport system to insure the best service that it can offer to the riding population, expansion of the areas of services of the rapid transport system, and continuous improvement in its physical plant to cater to the needs of the commuters.

The rapid transit system of the Philippines was found to be an integral part of the economy of the country. Although the assessment was slightly effective as to its operation

and maintenance of the rapid transit system, it showed that many riding commuters patronized it because of the advantages that it offered to them. They found it to be the fastest mode of transportation at present. There were inconveniences in using it though. However, they opted to use it because of the traffic condition that they experienced in taking the bus transport system. Verily, the rapid transport system in the country helped boost the economic development of the country with the manpower being available on time in their respective workplace. This manpower was the riding population composed of the 85% of the users of the rapid transit system. They utilized the system to make themselves available in their workplace at the time that they were needed in their work place. With this, their individual productivity in the company was unaffected. The company's productivity, in effect, was likewise, not affected. Hence, they directly contributed to the attainment of the company's goal. The same companies helped the government to become economically viable in the business world. As such, the economy of the Philippines reaches its stability.

Indeed, if this transportation system will be properly operated and maintained by the government and its partner, the Philippines will have an edge over other countries in its endeavor to become one of the economically stable countries in the Asian region. The productivity of the various companies in the country will lead the country to its peak stature of economic development. The government and its partner will lead the country to the economic height that a country may wish for. The economic development will redound to the benefit of the people who are the direct beneficiaries of the government's efforts of attaining the goal of being a stable country when it comes to its economy. Further, the people will become the partners of the government in its goal to attain economic stability. The people, to, will find satisfaction to the services that the system may offer to the riding population.

The identified programs of the riding commuters for the rapid transport system will enhance its services. Regular maintenance monitoring of the rapid transit system is deemed important because the system transports, on the average, 400,000 people in a day. With this numerous number of people availing its services, it is vital that the system maintains a high degree of efficiency to insure the safety of the people. It must sustain its operation without disregarding the safety of the people. Although the system is envisioned to serve numerous commuters, there is a need to maintain its service. Thus, a regular maintenance monitoring system is an important program of the management of the rapid transit system in the Philippines.

Secondly, the expansion of the areas of services of the rapid transport system is, likewise, recommended. The country has now three (3) rapid transport systems. This is not enough to address the growing demands of the commuters to use such system in order that they may reach their destination at the time that they intend to. The government may look into the possibility of introducing the system in another much needed line of transportation to cater to the needs of the riding population. The great majority of the people now are dissatisfied with the traffic condition using the bus transportation system in the country. It wasted the time of the commuters when they will use the bus to reach their destination. They choose, instead, the rapid transport system for their transportation means. With this end, the government may expand its services to the other areas of the metropolis to help people ease their problems in transportation.

Finally, the continuous improvement of the rapid transit system's physical plant was recommended. The system's numerous riding population is the primordial reason in sustaining its physical plant. With the improved physical plant of the system, the government and its partner, may consider the year round improvement of its areas of operation. The commuters stay temporarily in the rapid transit system until they get their ride. They are entitled to a good transportation amenities. Moreover, it is the social responsibility of the management of the system to continuously upgrade their physical plants. It is incumbent of their part to offer good facilities to the riding population. Thus, the management of the rapid transit system may sustain and/or improve further all the facilities that they offer as a consequence of the service that they offer to the public. Moreover, a provision for the persons with disability (PWDs) and other people with special needs may be considered so that they may be given a chance to use the system because they also transport themselves in one way or another for their own individual needs.

### **Conclusion**

Summarily, the rapid transport system of the Philippines is very young in its operation which is making a significant contribution in the economic condition of the country. It cannot

be denied, therefore, that the rapid transport system is an indispensable partner of the government in pursuing its goal to become great in Asian region. Like other countries that experienced difficulties in its initial operation of the same system in their places, the Philippines, too, had its own taste of difficulties with the system. The rapid transport system of the country will have its long way before it can be fully functional with perfection. It can be deduced that, directly and indirectly, the system is making its vital contribution in the economy of the Philippines because the great number of manpower resources capitalize it regularly which directly impact the productivity of the business sector. With its continued improvement and uninterrupted endeavor to make it better for the riding population, the rapid transit system will be a vital component of the economic development of the country in offering its services to its people. In the end, the Philippine's desire to become an economically stable nation is not just a dream but a reality for all Filipinos.

## **References**

Republic Act No. 7718 also known as Build-Operate-Transfer Law

*The 2016 AAPA Annual Conference in Thailand*

Goverde, Rob M.P. Punctuality of Railway Operations and Timetable Stability Analysis

Kabiling, Genalyn. Manila Bulletin. April 2014.

Network Development for Unattended Train Operation by the European Rail Research  
Advisory Council.

Page, Stephen J. Transport and Tourism Global Perspectives. Third Ed. 2009

Palapus, Hazel, and Hanoka, Shinya. Build-Operate-Transfer Challenges In Asian Rail  
Projects.

Policy for Participative Models in Rail Connectivity and Capacity Augmentation Projects.  
December 10, 2012

Railways Frames Policy to encourage Private Investment. March 2013.

“The Happy Commuter: A Comparison of Commuter Satisfaction Across Modes. August  
2014.

[http://en.wikipedia.org/wiki/Manila Metro Rail Transit System](http://en.wikipedia.org/wiki/Manila_Metro_Rail_Transit_System)

<https://indianrlys.wordpress.com/tag/railways-frames-policy-to-encourage-private-investment>