

Public Transport Selection among Young Adults: the Case of Mass Rapid Transit and University Students

*(Pilihan Pengangkutan Awam di kalangan Belia: Kajian kes Mass Rapid Transit dan Pelajar Universiti)*

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ABSTRACT

This paper investigates specifically what drives young adults to choose Mass Rapid Transit (MRT). From the perspective of young adults, this paper reveals the real demand and the attraction of MRT. To deliver their thoughts and opinions effectively, in-depth interviews were performed with 15 respondents among UKM students. The findings identified the element of low price, convenience, reduced traffic congestion, environmental protection, time-saving, good condition, safety, high efficiency, good enjoyment and more business opportunities as the factors for young adults to use public transport. In addition, the research found that inconvenience in a certain part of the service, insufficient information, small coverage and outdated management as the impeding factor for public transport usage.

Keywords: Public Transport; MRT; Younger Generation; Consumer Choice

ABSTRAK

*Makalah ini menyiasat secara khusus faktor yang mendorong golongan belia untuk memilih Mass Rapid Transit (MRT). Dari perspektif belia, kertas ini mendedahkan permintaan dan tarikan penggunaan MRT. Untuk meneliti pemilihan belia secara berkesan, temuramah mendalam dilakukan dengan 15 orang pelajar di UKM. Penemuan dalam kajian ini mengenalpasti unsur harga rendah, keselesaan, kesesakan lalu lintas yang berkurangan, perlindungan alam sekitar, penjimatan masa, keadaan yang baik, keselamatan, kecekapan yang tinggi, keseronokan yang baik dan lebih banyak peluang perniagaan sebagai faktor untuk orang dewasa muda menggunakan pengangkutan awam. Di samping itu, penyelidikan mendapati bahawa kesulitan di bahagian tertentu perkhidmatan, maklumat yang tidak mencukupi, liputan servis yang terhad dan pengurusan yang lapuk sebagai faktor yang menghalang penggunaan pengangkutan awam.*

*Katakunci.: Pengangkutan Awam; MRT; Generasi Muda; Pilihan Pengguna*

## INTRODUCTION

Over the past few years, Malaysia has made remarkable achievements in public transport (Land Public Transport Commission, 2013). People in general, have enjoyed more convenience connectivity. In addition, the public transport facilities significant role in promoting the economic growth that removing some of the transportation barriers between urban and suburban areas. Public transport facilities has a potential to improve the welfare of residents, alleviate the increasingly serious urban congestion, improve the operating efficiency of the city, alleviate the worsening of the environment such as air and noise pollution, and even reduce traffic accidents. Now, the construction of public transport has become a global trend (Pojani & Stead, 2015).

Despite the promising advantages offered by the public transport, to ensure the sustainability of such facilities requires an in-depth understanding of the end-users expectation and perception. Therefore, exploring the reasons for choosing public transport and understanding the real needs of residents for public transport can be very helpful. This paper aims to investigate specifically what drives people to choose MRT among young adults. The study was carried out at one of the public transport facilities named as MRT (Mass Rapid Transit). The reason being of MRT was selected is that this facility was recently opened in 2017, with the cost value of RM36billion. The route can provide 400,000 passengers per day to Klang Valley for more than 1.2 million people in the area.

The research conducted in-depth interviews with the passenger from UKM in serving the first objective of this study. This research will focus on the advantages and disadvantages of MRT services perceived by young adults in UKM. The second objective aims to unravel provide the young adults' expectation of how the MRT can be enhanced.

## LITERATURE REVIEW

This article reviews the previous studies related to the role of public transport in promoting the regional economy. From these studies, it was found that increasing use of public transport has potential benefits for the driving the local economy, preserving the environment with less carbon footprint, society and human health.

### The Important Role of Public Transport Facilities in Modern Society

Essentially, the cities of the future will either be car cities with decentralized employment or be public transport cities with an extremely high level of density (Glaeser & Janet, 2004). The core of all modern economic activities is trade and transport is critical to economic activity (Small et al., 2007). Public transport is the key to achieving economic connectivity, particularly in major urban centers). Low traffic cost is significant for reducing the cost of economic activities (Small et al, 2007).

There are two types of contributions that public transport makes to the economic development which is increasing the demand and the competitiveness (UTIP, 2009). Transport economics is focused on resource allocation and how the interactions among independent agents bring about a self-consistent outcome. The public transport brings people to the hub and people walk from the station to their workplaces (Glaesar & Janet, 2004). Public transport provides people with mobility and access to employment, community resources, medical care and recreational activities in communities across America (Eboli & Mazzulla 2007); Public transport potentially affects the nature of the urban area. If transport is costless, participants in an economy would have no economic reason to gather together (Small et al. 2007).

### The Beneficial Effects of Public Transport

The economic benefits of public transport include (1) the efficient connection of wealth and labor to the marketplace; (2) the removal of productivity bottlenecks (3) bringing more opportunities for individuals, increasing the income of business and government and increasing asset values (UITP, 2009). Public transport can bring significant benefits to the provincial and federal governments, almost twice of the benefits brought by private transport (UTIP, 2009). In addition, public transport plays an important role in reducing congestion and maximizing economic productivity (Wilkie, 2010).

The areas with good public transport systems are economically thriving communities and the public transport system offers location advantages to businesses and individuals working or living in the areas (Eboli & Mazzulla, 2007). High-quality public transport services also benefit the tourism industry, stimulate real estate development and boost the values of residential and commercial properties (UITP, 2009). On the similar note, public transport also supports population growth. As the urban population is growing, the demand for housing is also increasing. The integration of housing and transport planning enables the

sustainable growth of cities. Improving public transport system is a good way to solve the future challenges, e.g. urban growth and mobility, sustainable economic development and climate change. Public transport is a good place to enhance the social cohesion of different people in society. By providing an alternative travelling way for people, public transport plays a critical role in reducing carbon emissions (Wilkie 2010). People who use public transport are also more likely to walk, which improves the health and fitness of citizens (Grabow et al. 2011).

Increasing use of public transport leads to increasing demand for goods and services, employment and sales, lower transport costs, shorter travelling time and fewer harmful consequences, such as less pollution, fewer accidents, and less living space. Public transport can offer levels of reliability that private car cannot achieve (even though there is room for improvement in the reliability of public transport). People depend on this high level of reliability to make the best use of their valuable time. Efforts should be made to increase the investment in new transport services and infrastructure, as well as improve the quality and efficiency of existing services (Wilkie, 2010).

## RESEARCH METHODOLOGY

Since the focus of this paper is about young adults' perception on MRT, the UKM students were sought as the respondents. A qualitative research method was chosen in the form of in depth-interviews. The interview method is selected as it can be a is an important tool to collect the open and multiple view of a single context (Creswell, 2008). Qualitative research has some advantages, including more a realistic view or feeling which cannot be expressed by statistical data

and analysis (Ali et al. 2016, Berg et al. 2004).

### Data Collection and Analysis

Fifteen students at UKM agreed to participate in the interview. The most important part is preventing bias by not naming the students. In-depth interviews were conducted to obtain the key information from the students. The interview questions were acquired from existing literature and have been adjusted to suit with MRT users' perspective (Beirão et al., 2007). The face-to-face interviews were conducted in English.

Table 1 provides an overview of the interviewees. Each interview lasted for 15 minutes to half hour. All interviews were audiotaped, accompanied with comprehensive note taking and transcribed afterwards. Measures were taken to mitigate the biases such as the interview was recorded on tape. Then the records were reviewed twice.

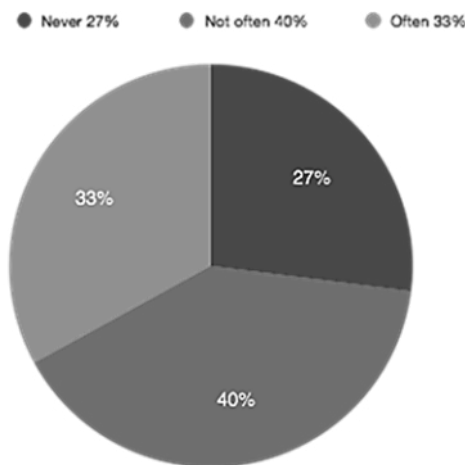
### Data Analysis

The data analysis was performed in two stages. First, the MRT position among young adults examined in a single context and the common ground of all interviewees was identified (Ayres et al., 2003). The features of MRT were analyzed from two perspectives. First, the advantages factors influencing selection among young adults will be analyzed. Second, the non-favourable factors will be analyzed. In doing so, it is required to identify the data patterns regarding students' experiences in MRT. Excel tables were used to facilitate the comparison of several possible dimensions (Miles & Huberman, 1999). Data reduction was accomplished through categorization. The results were then grouped into four integration strategies in addressing the attraction of MRT.

TABLE 1. Interviewee overview

	Nationality	Degree in	Joined UKM
1	Malaysian	Ocean Sciences	2017
2	Malaysian	Marine Sciences	2012
3	Malaysian	Microbiology	2016
4	Malaysian	Linguistics	2016
5	Malaysian	Information Technology	2017
6	Malaysian	Information Technology	2017
7	Malaysian	Information Technology	2017
8	Malaysian	Law	2016
9	Malaysian	Software Engineering	2017
10	Malaysian	Health Sciences	2016
11	Malaysian	Health Sciences	2017
12	Malaysian	Health Sciences	2017
13	China	Business Administration	2015
14	China	Business Administration	2016
15	China	Business Administration	2017

FIGURE 1. Frequency and percentage of using MRT by UKM students



RESULTS AND DISCUSSION

Among the interviewed 15 UKM students, 73% are using MRT among which 45% are using MRT frequently; 27% have never used MRT before as depicted in Figure 1.

Advantage Factors Influencing Selection

From the interview, there are some notable advantages element that has driven the young adults in using MRT. Rank wise, ‘price and convenient’ and ‘no traffic jam’ top the perception. It is followed by ‘environment’, ‘time-saving’, ‘safety’, ‘good condition’. Whilst the findings also found that the elements of ‘transport efficiency’, ‘enjoyable trip’ and ‘business opportunity’ are also part of the advantages perceived by the respondents.

*Interviewee 4 said: (...) since I’m a student, I would like to spend less money and time going where I want to go. Interviewee 5 said: the ticket is cheap, because we get student price, which is about 50% discount. (...)*

*Interviewee 6\7 said: (...) The price is cheap. Moreover, convenience is also an important factor to be considered among young adults when travelling. Convenience can be in form of any context, such as the infrastructure is disabled-friendly, close to the destination, alternative to owning a private vehicle, interchangeably to other types of public transport such as KTM, KLIA, etc. and the connectivity with the point of interest.the connectivity with point of interest..*

*Interviewee 13 said: (...) Also, good quality of service means friendly staff, and being friendly with the disabled, etc.*

*Interviewee 1 said: (...) It is much near to our campus.*

With the deepening of urbanization, the traffic jams in cities have become increasingly serious, which not only causes time waste and inefficiency but also leads to the waste of resources. This makes people realize that cars and cities are not good partners. In this context, MRT is increasingly valued. With the emphasis on green travel, people are more and more willing to take MRT as a travel means because of its advantages of less gas emission and less noise pollution.

*Other three factors include saving time, good condition and more safety. MRT wins the favor of people by shortening the time to wait, allocating more-frequent and faster trains. Secondly, good condition includes new facilities, good air condition and comfortable sets. Thirdly, it is safer than private vehicle, as accidents involving public transport similar to MRT is very rare globally.*

*Interviewee 8 said: (...) second is save our time, because MRT is faster than driving and it has no jam.*

*Interviewee 14 :(...) which means MRT is safer.*

*Interviewee 1: (...) also beneficial for our environment, by reducing the pollution of air and noise.*

Interviewee 12: (...) It is new and air condition is very good in tropical country.

They are efficiency, enjoyment and more business opportunity is identified from the respondent. The advantage of MRT over cars and other private transport is the ability to transport more passengers at one time. According to the interview, people are using MRT for enjoyment, even if they have a car. Compared with driving, MRT can free their attention from driving a car, during which they can read, talk or listen to music.

Interviewee 13: (...) It is faster and price is reasonable, and more importantly, it is safe.

Interviewee 14: (...) I can free myself from driving. I can read or enjoy the music. I can do lot of thing that drivers cannot do while they are driving. For

me, enjoying the travel is always better than only being a driver.

Interviewee 4: (...) Also bring more business opportunity to KAJANG, since KAJANG become a commuting area to KL.

Young people choose MRT for a variety of reasons. But the reasons mainly focus on the following aspects: cost, user experience and coverage. MRT is the cheapest travel tool, provides good user experiences such as no traffic jam, and is environmentally friendly and convenient. It can be said that within the scope of coverage, MRT can bring significant convenience.

### Disadvantage Factors Impeding Selection

Notwithstanding the advantages, the MRT is not exempted from shortfalls identified from the respondents, as shown in Fig. 3.

FIGURE 2. Advantages of MRT

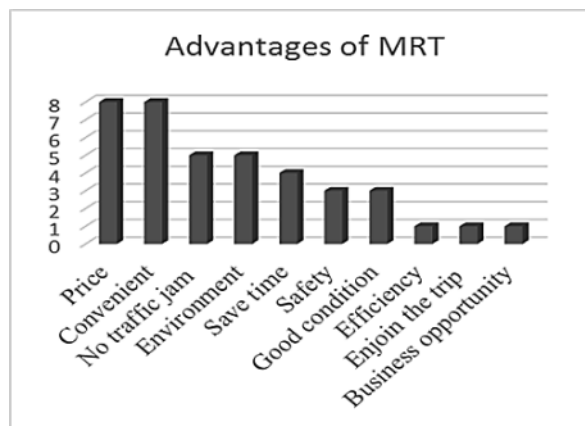
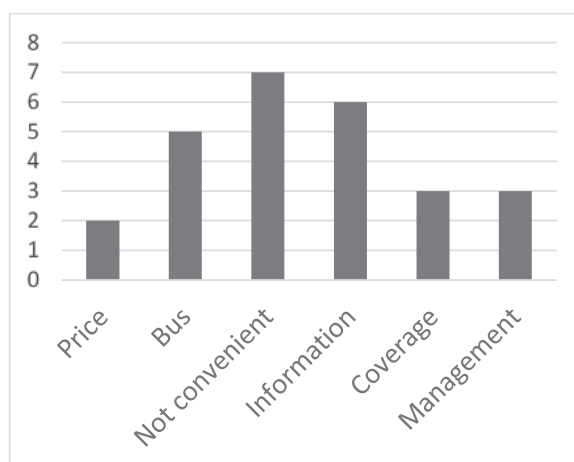


FIGURE 3. Disadvantages of MRT



It can be found that some factors appear in both advantages and disadvantages, such as price and convenience, but they are not contradictory. Some advantages in certain cases can also be converted into disadvantages. For example, coverage is an advantage for some of the respondents, but not for others. The largest disadvantage is inconvenient, which has been mentioned seven times. The second largest is the information, mentioned six times; the bus five times; the management three times; coverage and price twice.

Even though convenient has been mentioned on the advantages, there are some drawbacks of the services that may cause the inconvenience among young adult. element such as long waiting time, congestion in peak hours, station not in within walking distance from the nearest MRT station to the place of interest (i.e. UKM), parking space and platform that is far from one another, fewer interchange complicate the usage decision of MRT.

*Interviewee 12: (...) The time spent on queuing for buying the ticket is very long. And sometimes there are not enough sits for passengers during the peak hours. Like 5 pm, all the passengers are going back, causing the MRT congestion.*

*Interviewee 13: (...) such as the nearest station to UKM is KAJANG station, which is still far away from UKM, which requires at least 15 minutes of driving or 30 minutes of bus, sometimes even more if it meets a traffic jam or peak hours.*

*Interviewee 1: (...) Also, the distance from car park to the platform is long.*

*Interviewee 3: When I want to take MRT, I have to wait for the bus to take me to the MRT station first (...)*

The second largest disadvantage is insufficient information. According to the interviewees, they often encounter the difficulty of insufficient information about MRT, such as connecting bus schedule. On top of that, the young adults see the very few sources of information that can be referred to that increase the anxiety for them.

*Interviewee 4: (...) If MRT can clearly show the timetable, it would be much better.*

*Interviewee 9: (...) For me, the KTM is well known, while MRT is new for other people. As students, we don't have enough information about MRT.*

*Interviewee 12: (...) Also, as a person from other states and not familiar with this region, all the information about MRT was obtained from my friends, not from any public channel.*

The third largest disadvantage is about the bus that connecting MRT with another public transport. In spite of the connecting bus is a small part of the service provided, it has contributed significantly to the other shortfalls. The situation such as the increment of waiting time to the train time and services that have been stopped before the last train arrives..

*Interviewee 1: (...) And the bus from UKM to MRT station is not frequent.*

*Interviewee 15: (...) Secondly, sometimes the train is still in operating but the bus has stopped operating already; for example, the last bus usually stops operating at 10:30 or 11 pm but the last train arrives at 11:30 pm.*

*The remaining three issues are management, coverage and price. The problem with management is that there are no separate spaces for men and women, no place to maintain the order of the train and no flexible control of the air conditioning system.*

*Interviewee 14: (...) it would become more comfortable if there is more flexible control of air conditioning, which can also reduce energy consumption.*

#### Potential Factors That Can Increase Mrt Selection

During the interview, the interviewees also gave some suggestions for MRT, mainly including providing bus, price, increasing coverage, enhancing convenience, promoting and advertising, technology and management.

As shown in Figure 4, the most significant percentage is enhancing convenience, which involves reducing congestion during peak hours and covering more areas and residents. The second most significant factor is management, involving maintaining order by friendly staff and police officers and continuous monitoring on separating male and female spaces.

*Interviewee 8: (...) So, it is good for MRT to have independent space for women. (...) But MRT staff need to make sure people follow it.*

*Providing more buses and widening the coverage*

is the third most significant factor.

*Interviewee 15: (...) My suggestions are adding one more bus at night, so as to wait for the arrival of the last train.*

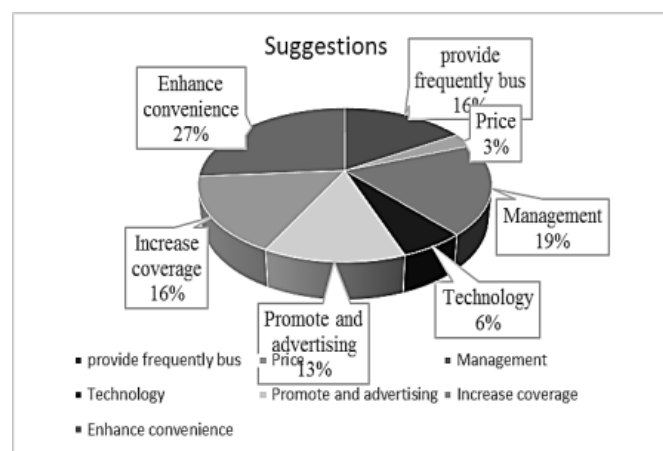
*Interviewee 1: (...) In the long term, MRT should increase the number of stations and widen the coverage.*

*Interviewee 14: (...) Add more buses for UKM students so that they can easily catch the bus.*

The rest are promoting and advertising, technology and price, where promoting and advertising include increasing publicity, the technology involves developing an application and using social media to promote, and price means providing appropriate discounts for the group passengers.

*Interviewee 9: (...) For me, the best way to attract people is to develop an application, and MRT can share their information through Facebook and Instagram, etc.*

FIGURE 4. Suggestions given by the interviewees



## CONCLUSION

As the urbanization continues to intensify, people are also facing new challenges while enjoying many conveniences. The development of public transport has effectively alleviated the challenges. The purpose of this study is to find out what aspects of MRT are attractive to the young adults.

Based on the responses, the advantages of MRT include low price, convenience, reduced traffic congestion, environmental protection, time-saving, good condition, safety, high efficiency, good enjoyment and more business opportunities. The disadvantages include group prices, insufficient bus, inconvenience in certain areas, and insufficient information, small coverage and outdated management. People will keep using MRT because the advantages of MRT are still surpassing the disadvantages.

The suggestions include adding connecting buses between stations and interchanges, optimizing management, taking the full advantage of technology, promoting and advertising, enhancing convenience, increasing the coverage and offering group discount.

People who have taken MRT generally feel that it is fast, punctual, convenient, comfortable, quiet, and safe. These feelings are exactly what the people in modern cities need. In the future, with the widening of MRT coverage, people will enjoy more benefits from MRT. In-depth understanding of the needs of passenger and continuous improvement of public transport facilities and services will not only bring the convenience for residents but also effectively optimize the allocation of urban resources, help the government to operate in a more efficient way and contribute to the happiness of the residents.

In general, all the interviewees were honest and answered the questions earnestly. Even though if some of them had difficulty in expressing their opinions in English, they fully understood all the questions and made good responses. Nevertheless, the interviewees could have been more and the composition could have been more diverse.

This study only involves the UKM students. However, if the interviews were conducted with the local residents of different ages, it could have provided a more in-depth understanding.

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