# THE INFLUENCE OF SERVICE FACTORS TOWARDS THE SATISFACTION OF EXPRESS BUS PASSENGERS IN KUALA LUMPUR

BY

## FAIRUL RAFIQ BIN ZAINUDDIN

MASTER OF SCIENCE (MANAGEMENT) UNIVERSITI UTARA MALAYSIA (UUM) APRIL 2015

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### ABSTRAK

Majlis Amanah Rakyat (MARA) di awal penubuhannya telah menjadi satu dari agensiagensi kerajaan, yang memainkan peranan utama dalam meningkatkan status sosioekonomi Bu, iputera. Beberapa program telah dirancang dan disediakan yang mana satu antaranya adalah perkhidmatan Kenderaan Bas MARA (KBM). Walaupun hampir 100% dari projek KBM adalah projek yang beroperasi di laluan yang boleh, dianggap sebagai bukan komersial atau menguntungkan namun mereka komited dalam menyediakan perkhidmatan yang terbaik kepada pelanggan dan konsisten dalam memenuhi misi dan tanggungjawab sosial mereka. Mesyuarat Pengurusan Bahagian Kenderaan MARA sebelum ini telah membuat keputusan untuk memberi tumpuan kepada laluan ekspres, dalam perkataan lain adalah bermotifkan keuntungan manakala bas operasi kekal untuk tanggungjawab sosial Tujuan kajian ini adalah untuk mengetahui faktor yang khusus kepada perkhidmatan yang disediakan yang boleh mempengaruhi penumpang untuk membuat pilihan melanggan perkhidmatan bas ekspress apabila mereka merancang untuk melancong ke destinasi seterusnya. Kajian ini dijalankan dengan menggunakan kaedah temubual, soal selidik dan perisian statistik untuk mendapatkan gambaran yang lebih baik. Adalah menjadi harapan saya agar dapatan dari kajian ini dapat membantu pihak pengurusan KBM untuk membangunkan langkah-langkah pemasaran terbaik dalam menarik dan mengekalkan penumpang dan pada masa yang sama dapat menjana pendapatan yang lebih baik.

Kata kunci: pembekal perkidmatan bas; tanggungjawab sosial; kepuasan penumpang

### ABSTRACT

Majlis Amanah Rakyat 'MARA' (The Council of Trust for Indigenous People), being one of the main government agencies, in early formation has played major roles in increasing the socio-economic status of Bumiputra's. Several programs has been planned and provided which one of it are MARA Bus Transportation (MBT) services. Even though almost 100% of MBT's project is operating in a route, which can be, considered as non-commercial or profitable but MBT is committed in providing the best services to its customers, as it is consistent in meeting their social responsibility mission. Previous management meeting of MARA vehicle department has made a decision to focus on express route, which in other word to go for profit motive while the stage bus operation for social responsibility. The purpose of this research is to find out which factors specifically on services provided that can influence the passengers to choose bus service provider when they plan to travel to other places. This research is conducted using interviews, questionnaires and statistical software in order to get a better picture. It is hope that with the outcomes that derive from this research will assists the MBT's management team to develop the best marketing measures in both attracting and retaining the passengers and thus, generating a good income at the same time.

Keywords: bus service provider; social responsibility; passenger's satisfaction

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### FAIRUL RAFIQ BIN ZAINUDDIN 810182, MSc UUM

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### **CHAPTER 1**

#### INTRODUCTION

### **1.1 Background of Study**

Increasing travel demand and preferences in using private vehicle is causing rapid motorization in many counties around the world. Most people now are highly dependent on private motorize travel (Ellaway*et. al.*, 2003). Automobile use is clearly associated with a spread of benefits like on demand quality, comfort, status, speed, similarly as convenience. These blessings collectively illustrate why automobile possession continues to grow worldwide, particularly in urban areas (Rodrigue*et. al.*, 2009).

In response to the rapid motorization, it will then lead to further traffic congestion at peak traffic hours on major thoroughfares, in business districts and often throughout the metropolitan area (Rodrigue*et. al.*,2009). In fact, automobile dependency increase issues like traffic congestion, road and parking facility costs, crashes and pollution (Todd Litman,2010).

Therefore, in order to prevent problems caused by rapid motorization it is essential to provide an attractive public transport service as a preferable transport mode to move all groups of people travelling. Public transport should become part of a solution for sustainable transport in the future. However, in order to keep and attract more passengers, public transport must to have high service quality to satisfy and fulfil wider range of different customers' needs (Oliver 1980; Anable 2005).Thus, it is important to summarize knowledge about service quality factors that will influence public transport users to use the future BRT as to provide such an attractive and marketable public transport system to promote bus public transport ridership. The focus of this thesis is bus public transport in Kuala Lumpur since the number of car ownership is increasing rapidly.

### 1.1.1 MajlisAmanah Rakyat (MARA)

The early history of MajlisAmanah Rakyat (MARA) started before the country gained independence. In July 1950, the Federal Legislative Council of Malaya (MMUPTM) have agreed to establish an Agency or Special Board called the Board of the Village Development and Enterprise (LKKP), better known as RIDA (Rural &Industial Development Authority). Establishment of RIDA confirmed through letter No. 10/1951 Meetings MMUPTM in the conference which was held on 25 April 1951 and enacted Ordinance No. 48 Year 1953

Establishment of RIDA based on the principle of Self Help Wanted is to be the engine of change in terms of socio-economic development of rural communities. The slogan of the late Dato 'OnnJa'afar as Head of RIDA has opened up opportunities for people involved in entrepreneurship and acquire formal and informal education. However Bumiputera Economic Congress 1965 have been aware of the need for a more focused agencies help improve the socioeconomic status of Bumiputera created to replace RIDA. Realizing this, on May 1, 1966 MARA was established.

The fact journey from RIDA to MARA strong until now. This has opened up opportunities to the Malays and other Bumiputeras to improve socio-economic conditions in both urban and rural areas. In Entrepreneurial Sector, Transport Bus MARA (KBM), was founded in 1961 with a focus on stopping bus services connecting the rural areas and new growth centers in the urban centers. Social services program is inserted with the express aim of privatization route attempts to be taken over by Bumiputera entrepreneurs. In fact MARA has pioneered the industrial land and sea transportation until then express service is privatized on June 6, 2001 and known as the Transnational undertaken by Nadicorp Holdings Sdn Bhd.

### **1.1.2** Public Transportation in Malaysia

Public transportation in Malaysia consists of airlines, rails, buses and boats and most of these public transport services are performed by agencies appointed by the government. These agencies were engaged by the government to perform some services on their behalf which involves delegating some decision making authority to the agency (Jensen and Meckling, 1976).

Public transportations are essential traveling mode, especially for those who have only limited access or no access to private transport. To some of these people public transportation is the only means of getting from one place. But to most people, they would rather drive than use public transport even if there were a high level of services (Schwarz, 2003) which was why the number of public transport users has significantly decreased compared to those who uses private transport, from 40 : 60 in 1980 to 20 : 80 in 2000 (Utusan Malaysia, 28.11.2000).

This prompts the government to focus on various strategies to encourage the use of public transport. Hence, an intelligent transport system was set up in the Malaysia's Nine Plan (2006-2010). A National Transport Policy was also established with the objectives of improving the effectiveness, confidence and the quality of transportation system through out the country. The seriousness of the government to improve public transportation can be seen from government decision to use RM 4.4 billion saved from subsidies when fuel prices were raised by 30 cents in March 2006, for these purpose.

Obviously there is an urgent need to overcome this issue especially when the number of person auto trips in Malaysia is estimated to double from 1997 levels by 2020 based on current trends (Gakenheimer, R, 2003b).

### 1.1.3 Express Bus Industry Insight

Presently in Malaysia the transportation industry has change quite noticeable. Currently there are over 300 bus operators registered with Public Service Vehicle License (PSVL) comprises of stage activity and express buses. For an individual or a company to set up bus related entities will have to submit an application to service to intend routes offered to PSVL with suggested busses via registered bus number. The cost for a stage busses is around RM 400,000 – RM 500,000 while for the express busses will cost around RM 400,000 – RM 800,000. Depend on how such entities operating their businesses; it can be highly capital intensive or low in nature. Highly in nature is when such entities using their own fund (loan or self funded) such as MBT itself, Rapid KL and Transnational etc. By taking the average of RM 350,000, 10 busses alone is in needed of RM 3.5 million in capital which 10 busses itself it is not enough to sustain or make presence felt in the market. There also some bus operators in reducing the capital expenditure are actually leasing their route permits to whomever entities who had busses. This means that such operators would need not to purchase buses and obtained profit only from such leasing activities.

By observing the number of express operators currently operating, noticeable that the company behind the bus name running on the streets are big, strong and healthy (monetary). A company operating with less than 10 - 20 busses cannot sustain anymore due to the increase in diesel prices and stiffer competitions.

The same goes to the stage busses where noticeable, the drivers eagerly drive the busses without having to consider other safety surrounding to ensure such passengers travel using their busses. Adequate passengers will guarantee the sustainability or future of the bus operators. To add the burden, the rising in fuel prices have motivate a number of stage bus operator to exit the market which easily notice when rapid Penang and rapid Kuantan have to make a rescue to this service in said area. Other than that, a bigger operator who has bigger cash will force smalls express operators to exit the industry by offering a lower fares to the similar routes offers. As a result of not able to withhold the pressures, small operators will exit eventually.

Threat of substitutes is dependable regardless the service offers. For the stages, publics have no other choice to commute using others public transportations to cities from rural areas because there is no other mean such as commuter or light rail transit (LRT) etc. The only ways other than busses is only taxis and unregistered taxis which is costly to publics and not the preferences option.

For express busses, publics can commute to other countries using public transportation by trains such as Johor – Melaka – Kuala Lumpur – AlorSetar, airplane such as AlorSetar – Kuala Lumpur and Terengganu – Kuala Lumpur and taxis. The introductions of ETS have added to the tension felt by the operators' due to the scheduling assurance despite having a bit of higher fare ticket.

Place of destination is depend on SPAD as they are the entity which govern or control over the permit. A bus operator can make an application where or destination that intended but it merely subject to the approval. This restriction is to ensure that they will be no over permits issues which eventually affected the bus operators among them.

As for this permit approved are subject to the condition that applicants have a good reputation and records with Road Transport division and Police Traffic as the drivers are highly exposed to the possibility of road accidents. Methodology of handling busses is not the same (express and stages), bus operators who include both services will needed to out extra money in providing the training to the drivers.

### 1.1.4 Background of MARA Liner Express.

Operating express bus services is not new to MARA. In the seventies and early eighties, MARA through MARA Holding SdnBhd (MHSB) operates express bus services under the name MARA Express until 2000 when the government decided to privatize MHSB to Nadi Corp, which in turn renamed MARA Express to Transnasional. MHSB were then converted to became one of MARA's division; Kenderaan Bas MARA (KBM).Since then MARA through KBM continues with its social responsibility in providing bus services in the rural areas.

In 2004, MECD realized there is a need for a government agency to play an active role as a service provider in the express bus service industry. The main objective is to serve as a role model to the other express bus operators. Thus, MECD approved and issued permits for KBM to set up and operate express bus services in strategic routes, which include rural areas.

Hence, with the blessing of MECD, financial and human resources support from MARA. KBM established MARA Liner Express on September 14 2005. With corporate slogan "TemanDestinasiAnda", Mara Liner Express's vision is to provide the best services an express bus operator can offer. On September 20<sup>th</sup>, MARA Liner tested run its operation by plying on selected routes and on September 24<sup>th</sup> 2005, it was officially launched by Dato' Mohammed Khaled Bin Nordin, Minister of Entrepreneur and Cooperatives Development in Bandar Penawar, Johor.

Beginning October 1<sup>st</sup> 2005 MARA Liner started its Phase One operation from 16 destinations, which cover Kangar, AlorSetar and K. Nerang in northern region, Chini, Muadzam Shah, Bandar TunRazak and Rompin in the eastern region and in southern region it covers Johor Bahru and Bandar Penawar.

### 1.1.5 Passenger's Satisfaction

Passenger'sSatisfaction on transportation has been mentioned bynumerous nations. Friman (2010) inspected full of feeling responses to passengers holding up times identifying with open transport and their effect on general satisfaction with the service in Sweden. The study found that overall satisfaction with public transport compared with the way of the holding up time situation. Chen and Lai (2011) investigated the relationship between passenger's behavioral propositions of public transit and the different elements that influence service quality, perceived value, satisfaction and contribution in Taiwan. The study found that service characteristics, for example, vehicle safety, facility cleanliness, and complaint handling have critical impacts on passengersbehavioral expectations. dell'Olio*et. al.* (2011) additionally evaluated the nature of administration fancied by open transport clients in the city of Santander. The study found that holding up time, cleanliness and solace are general society transport variables that clients esteemed most. Shiftan and

Sharaby (2012) evaluated the effect of passage reconciliation on travel conduct and travel ridership in the city of Haifa, Israel. The study found that passage lessening was a huge calculate pulling in travel clients, urged explorers to move from private autos to transport. As indicated by Cullinane (2002), if open transport is by and large seem to be great and modest, it can stifle interest for private autos. As per Awasthi*et. al.* (2011), overseeing administration quality is crucial to hold consumer loyalty and expand incomes for any business association. Likewise, understanding the behavioral plans of open transport travelers is vital, in light of the fact that, client dedication is seen as a prime determinant of long haul budgetary execution (Chen and Lai, 2011).

### 1.1.6 Why is important

Lack of study focusing on the customer satisfaction in the transportation industry. Browse through the database a lot of study focus on the shopping experience, on line sales, physical experience, etc that seem within the chosen industry being neglected of it important to the development of a country.

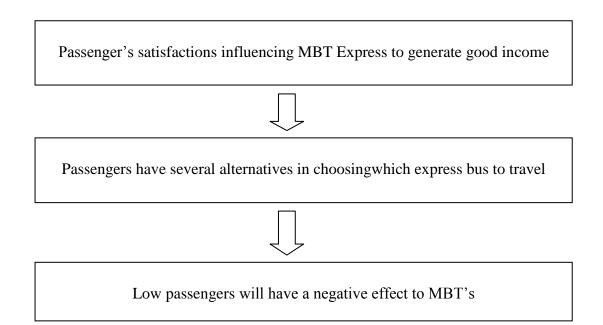
MBT was chosen as a case study due to the fact that it is currently one of the main contributor or player in the Malaysia land transportation primarily focusing in bus services. It history is in concurrent with the Malaysian transportation environment.

MARA involvement in transportation industry begins with the establishment of Kenderaan Bas MARA, translation of MARA Bus Transportation (MBT) in 1961. This project is dealings with the basic needs of sub-urban area through stages bus that connecting peoples to a nearby urban area. During development stage, MBT is emphasizing on social service and supporting Bumiputera's in transportation industry. Till 1979, 25 MBT projects have been delivered to individuals and Bumiputera Status Company. Moreover, 4 projects namely Sendayan, Rembau-Tampin, Klang-Banting and MARA Ekspress have been remitted to MARA Group of Transportation Bhd (MGTB) which established on 7 Mac 1974 under the management of MARA Transportation Department. On 1 July 1979, through recognition from SGV Kassim& Chan, MGTB and MBT were separated due to a difference in objectives, which is profit motive vs social responsibility.

On 1 September 1985, MARA Holding SdnBhd has been established by took over MGTB and then privatised to NadicorpSdnBhd which currently naming their express bus as 'Transnasional'. On 7 December 2000, Economic Planning Units (EPU) under Ministry Department officially notified that under the privatisation scheme, MBT is excluded, where at the moment is under the management of MARA Transportation Department.

MBT performance until now can be observed from its passenger's number. A total number of 7.5 million (estimate) passengers have used MBT throughout the year 2001-2005, for several occasions. On 22 April 2004, Minister of Entrepreneur & Co-operative Development has agreed that all new and additional routes are reviewed so that it can reduce the total costs incurred at current. He has notified his intention that MARA will administering all small

Bumiputera bus transportation entrepreneurs due to the facilities and networks under MBT including the service workshop that can be benefited.



### **1.2 Problems Statements**

Business organizations nowadays must understand what differentiates their organizations from others and must understand the needs of the passengers in their markets. If these two ingredients are understood, a business can develop a strategic plan to create a market niche and develop their customer base to be successful. Development of this information along with the development of the business operations can lead to some form of a competitive advantage in the market. Understanding the passengers can be a starting point for most businesses and a re-evaluation point for most others.

There are at times where a gap occurs between what passengers expect and what management/businesses believe they expect. This often happens because

organizations have overlooked or not fully understand the perceptions and expectations of passengersand their satisfaction includes of many attributes and differences. These differences are not only related to demography, society or any particular matter.

There is a complex development of satisfaction that exists in the market, where passengers can be spontaneous, unpredictable and selfish. By this definition, passengers usually try to find the most advantageous deal around and always raced racing to become the number one (number one can be a business or themselves). Mean that, some of the best alternatives to choose on which express bus for the trip. Inaccurate estimates can lead to low income returns, lack of passengers and weakness image or reputation

As far as the authors' know, not many techniques for measuring customer satisfaction and service quality in public transport are reported in the literature. (EboliandMazzulla, 2006a).However, actual transit agencies have an interest in obtaining a high level of quality of service, taking care of the priorities and requirements of passengers (Bertini and El-Geneidy, 2003). For this reason, the necessity of using techniques to identify the importance of the attributes of quality services to the global satisfaction and to assess the quality of services, increase.(Eboli andMazzulla, 2007).

### **1.3** Research Questions

This study is to answer questions that arise from the problem statement.

- a. What is the relationship between Bus Condition and Passenger's Satisfaction
- b. What is the relationship between Bus Services and Passenger's Satisfaction
- c. What is the significant influence between Bus Condition and Passenger's Satisfaction
- d. What is the significant influence between Bus Services and Passenger's Satisfaction

### 1.4 Research Objectives

The main objective of the study is to identify how passenger's satisfactionswould affect MARA Bus Transportation (MBT) services. Passengers are individual or group of peoples that travel, using transportation provided by any bus transportation providers for working, businesses, visiting and leisure purposes.

The specific objective of this study is:

- a. To identify the relationship between Bus Condition and Passenger's Satisfaction.
- To identify the relationship between Bus Services and Passenger's Satisfaction
- c. To identify the significant influence between Bus Condition and Passenger's Satisfaction.

d. To identify the significant influence between Bus Services and Passenger's Satisfaction.

### **1.5** Significant of the Study

The purpose of this study is to identify passenger satisfactions factor correlation. In this event the study focused on the factors in terms of Passenger's Satisfaction in Bus Condition and Bus Services. In contrast to previous studies which was focusing more on the study on employee transit discount program, effect of advanced traveler information on commuter tendency to use transit, to improve understanding of consumer reactions to product concepts, and to help develop improved methods for further quantitative customer surveys.

#### **1.6** Scope and Limitations of the Study

### 1.6.1 Scope

Attempt to understand factors of express bus attributes provided by the operator that influencing the passenger to choose which bus to commute. As such, this study focused on passengers who had experience of the use of bus services. The location gathering the data is at Terminal Bersepadu Selatan (TBS Bus Terminal) at Bandar Tasik Selatan and Puduraya Bus Terminal. The main reason for choosing these terminals is made for all nationwide network of express buses will eventually connecting at these terminals. With regards to the study population, the respondents will be the passengers who purchase the tickets at both terminals.

### **1.6.2** Limitations of The Study

In spite of the fact that the study has come to its point, there were some avoidable limitation. To begin with, in view of the time limit, this study was conducted just on the small size of population in choosing station in Kuala Lumpur. Hence, to sum up the outcome for larger groups, the study ought to include more participants at different station. Second, responded have a problem in answering question. Most of responded not interested in answering any question and need to spend more time to gain result of selected population. Third, there are not many research has been done in this area. Due to that matter, current research can be found in a year in 70's, and 80's and finally this study focusing in two main variables such as Bus Condition and Bus Services.

### **1.7** Organization of Thesis

This study is divided into five chapters;

The first chapter discusses on the introduction of the subject focus in the study. It covers the background of the study, statement of the problem, research objectives, significance of the study and significance of using MARA Bus Transportation (MBT) services as a Case Study and thesis organization.

Chapter two presents literature review on variable factors such as in Bus Condition and Bus Services, reviews on related theories, explanations and comments on the importance of factors and the organization case study background. At the end of this chapter, conclusion is based on the views and findings in research models that form the basis of this study.

Chapter three specifically describes the methodology used in this study includes the study on conceptual framework, hypothesis development, research design of the study, operational definition and measurement of the variables, method used on data collected, designing sample of population, technic of data collection and the procedures and the conclusion.

Chapter four covers the descriptive analysis on result, analysis and method of data collected and the conclusion of finding and finally;

Chapter five covers the discussion on variables, recommendation and conclusion of the study.

#### **CHAPTER 2**

### LITERATURE REVIEW

### 2.1 Introduction

This section consists of reviews on literature that exist in a number of journals, reports and articles available relating to this study. It also explains the dependent variable, which are bus passenger's satisfaction as well as the relationship between independent variables.

### 2.2 Reviews of Related Literature

### 2.2.1 Bus Passenger's Satisfaction.

Customer satisfaction refers to the extent to which customers are satisfied with the products and services provided by businesses. Level of customer satisfaction can be measured using survey techniques and questionnaires. Achieve a high level of customer satisfaction is very important to the business because satisfied customers are the customers who are most likely to become loyal customers and creating duplication and use of the various services offered by the business.

Customers are the key to every business. According to Lee and Ritzman (2005), from the outlook of operation management, it is obvious that customers play a main role in the organizational process. Customers will be

the first aspect to be considered by management in their after sales service. Questions will be asked in the strategic planning in terms of their target customers, their characteristics and purchasing power in order to determine whether their customers are satisfied or not with the products and services. This indicates that, customers are not only important in the business environment, but it is vital to satisfy them in terms of providing quality services.

Oliver (1997) explained that satisfaction reflects an opinion and evaluation of post consumption that contains elements of both cognitive and affective feeling. Oliver (1999), There are five essential criteria customer to be loyal from satisfied product or service which is :

First, the product must be of some unique configuration that makes it desirable (i.e., superior).

Second, a profitably sized segment of the firm's customers must find it desirable in this manner.

Third, the consumable must be subject to adoration, at least in the eyes of the firm's potentially loyal consumers.

Fourth, the product must have the capacity to be embedded in a social network, for if a firm's consumers cannot be networked at least perceptually, they cannot feel that they are part of a village.

Fifth, the company must be willing to expend resources to create, populate, and maintain the village. This does not have to be a physical or even electronic

Besides that it has been seen as a feeling in a comprehensive manner or attitude, a person has regarding a product or service once it has been bought (Solomon, 2009). Furthermore, Giese and Cote (2000) also explained that customers'' satisfaction is the form of a brief, emotional, and variable response density, which focuses on a particular aspect of the acquirement or utilization which takes place at a particular moment once the person resides the products or services.

From Westbrook and Riley (1983), customer satisfaction is referred to as an emotional reaction to the experience related to specific products or services purchased at retailed outlets. They also considered it as a molar pattern of behavior such as shopping and buyer deeds as well as the overall marketplace. In addition, satisfaction is an individual's thought of happiness or displeasure resulting from evaluating a products perceived performance or service in relation to customer expectations (Kotler and Armstrong, 2001).

Service operations are dealing with highly varied and unpredictable customer because they are able to think, feel, and react to the operations (Lentell, 2000). For the operation that targeting customers' satisfaction, marketing efforts are needed in contributing to customer experience (Rathmell, 1966). Customer satisfaction is achieved once the real performance exceeds the expectations of those being served (Dehgan and Shanin, 2011). It is very critical for companies to establish long-term client relationships in order to achieve customer satisfaction. This is because customer satisfaction has been found to direct effects on potential profitability, increased consumer keenness to pay cost premiums, offer referrals and used extra of the company's" product and service (Ferryanto, 2006). In addition, based on Boshoff and Gray (2004) satisfaction is not intrinsic in the product or service itself, but also satisfaction principally consists in the consumer's perceptions of the attributes of the product or service as they relate to that person.

For the purpose of this study, the meaning of customer satisfaction will be based on Kotler and Armstrong (2001) and Giese (2000). This is based on the objectives of this study to seek in the relationship between the service quality dimensions towards customer satisfaction about servicing at the chosen bus transportation from one of the bus company in Malaysia.

Passenger satisfaction with regard to transport studies have been made in many countries around the world. For example, Friman (2010) examined the effect of reaction time waiting for passengers who have a relationship with the public transport and its impact on overall satisfaction with transport services in Sweden. This study found that overall satisfaction with public transport in line with the nature of waiting time scenarios. Chen and Lai (2011) examined the relationship between behavioral intention public transit passengers and various factors that affect the quality of the service, perceived value, satisfaction and involvement in Taiwan. This study found that the properties of the service such as vehicle safety, cleanliness facilities, and the handling of complaints have significant influence on behavior intention passengers.dell'Olio*et. al.* (2011) also assess the quality of service desired by the urban public transport

users of Santander. The study found that the waiting time, cleanliness and comfort of public transport are the variables most valued by users. Shiftan and Sharaby (2012) assessed the impact of fare integration on travel the behavior of transit passenger trips in the city of Haifa, Israel. The study found that the reduction of fares is an important factor in attracting transit users, encourage passengers to switch from private cars to the use of bus transportation. According to Cullinane (2002), if public transport is generally seen as better and cheaper, it can restrict the demand for private cars. According to Awasthi*et. al.* (2011), managing quality of service is important to maintain customer satisfaction and increase revenue for any business organization. Also, understand behavioral intentions of public passenger is important, because loyal customers are seen as important factors that determine the long-term financial performance (Chen and Lai, 2011).

### 2.2.2 Bus Condition

#### 2.2.2.1 Safety

A bus must be a confortable and safe to travel. It is very important to pursue studies with the presumption that passengers should not be injured even in an accident.

Passenger safety is obviously considered a priority by bus company services. Start inhibition, automatic door opening and bus materials and internal architecture are unanimously considered the top items for bus passenger safety. With the exception of driver assistance system for passenger and pedestrian safety, the perception of the importance of other driver assistance systems for vehicle monitoring and bus safety are not unanimous among bus company managers (Cafiso, Di Graziano andPappalardo, 2013). The empirical findings suggest that the greatest potential gain in establishing a more positive experience would be achieved by first increasing frequency and next by enhancing personal security on the bus.

This means that the operators should find greatest improvements in the rating of overall experience by emphasizing these particular attributes. (Hensher, Mulley and Yahya, 2010). Below propose attribute:

#### Attribute

Overall constant
Age of bus passenger (if over 12 years old)
Commuter (1) vs. non-commuter (0)
Frequency of bus services during the day (important (1) vs. unimportant (0))
Personal security on the bus (important (1) vs. neutral or unimportant (0))
Satisfaction with personal security on bus (satisfied (1) vs. neutral or not satisfied)
Bus trip surveyed was a 'Superoute' (1) service
Figure 2.1: Rating of Overall Experience

The passengers are willing to pay more on items such as ride smoothness, safe driving, on-time performance, ease of purchasing tickets, and cleanliness on bus interior.(CH Wen, LW Lan, CH Chen, 2005). Below propose framework:

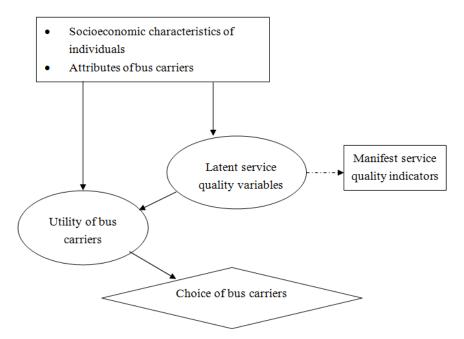


Figure 2.2: Willing to Pay

The safety conditions of a bus are the first approach of the user to the transport system and consequently it may influence future choices (Amadori M, Bonino T, 2012).

A condition which the bus approximately able to arrive to intended place without any breakdown, accident, fatality etc. As for this, the staff that is responsible for the buses should be qualified and regularly inspect based on structural schedules as it affect human life.

### 2.2.2.2 Cleanliness

Cleanliness refers to the internal and external cleanliness of vehicles and cleanliness of terminals and stops. Maintaining the cleanliness of buses, bus stop and shelters usually taking care by the maintenance department. The issue of cleanliness at the bus stop refers to trash in bus stop areas falls under municipal city policy rather than bus company duty. If the garbage issue was not handling well, it wills contributes to more litter at bus stop and bus station area that will affect passengers satisfaction and interest to use public transport. Cleanliness of bus interior also affects passengers' perception. According to Abdel-Aty, KitamuraandJovanis (1996), Transportation Research Board, (1999), cleanliness can be classified into 3 levels (clean, semi-clean and dirty). Based on March 1999, it was reported that 96% of rail cars entering services are semi-clean with a definition of the vehicles are swept but still had papers around. However, it was only noted that, the cleanliness refers to the vehicles before entering service. The quality is seen by a public transit passenger has been carefully investigated in recent years. A particular attention has been paid to features such as onboard comfort and cleanliness. Below proposed framework : (Eboli and Mazzulla, 2007)

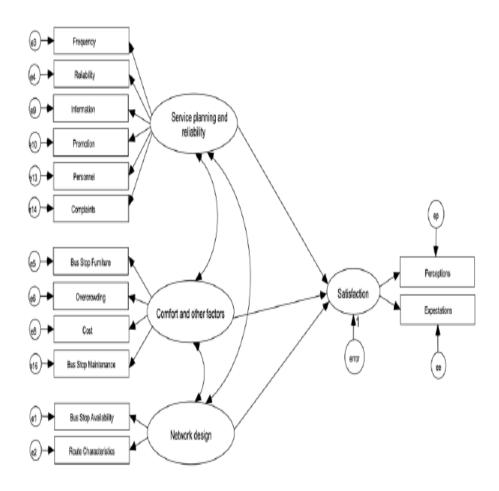


Figure 2.3: Affects of Passengers' Perception

A positive weight indicates that a very clean bus adds to utility the equivalent of its importance weight compared to a bus that is not perceived as very clean (Hensher, Stopher, Bullock 2003). Variables (e.g. comfort standards, security, cleanliness) would, if implemented as a package, can generally improve patronage by a maximum of 5–10%. (Currie and Wallis , 2008)

This is a condition of the bus and the environment surrounding the administration and the operation area of the bus transportation provider. If let say that the bus is unclean and stinking, the passengers' perception will be affected. This can affect the number of passengers that might use the services.

#### 2.2.2.3 Entertainment

The travel experience is more complex, being influenced by various such as perceptions of the service provided that drive the passenger experience, some of which are not directly controlled by the transport provider or are dependent on technologic advancements that the passengers demand, such as information provision (Carreiraet. al., 2010). Entertainment is provided in commute environments, as in many service settings, as a time filler to direct customer attention to the nontemporal stimuli presented so as to undermine temporal information processing. Moreover, amusing entertainment is able to elicit positive moods during one's commute.( Li YW, 2003). Innovations associated with traditional media also offer considerable commercial potential, in part, because all electronic media are evolving rapidly, converging with other media, and becoming increasingly interactive. To combine "richness" and "reach" of multimedia channels, a user-friendly interface is critical, as is access to interactive technologies for as many potential customers as possible (Mundorfand Bryant (2002).

This is where the bus is equipped with a good sound system and entertainment facilities such as LCD, DVD etc. There are passengers that love to listen to the music or watching the movies rather than seeing the outside the windows throughout the journey without anything to think off.

#### 2.2.2.4 Appearance

Passengers are satisfied over the new bus and the bus design that is equipped with ultra-low flooring and bus cleanliness.(S. Haron*et. al.*, 2010). The results of the pilot survey show, passenger satisfaction equal to that achievable with a new vehicle, however can also be achieved with an older vehicle, provided that the driver's work is outstanding. An ageing bus need not be in poor condition even though in this particular instance it was as along the operator substitute with other attributes.

The choice of public transport as a preferred mode of travel by travellers in the city is mainly influenced by quality of bus operation services. Previously, users were satisfied with basic services and the availability of routes and the location of service. However, transit users today are more demanding from the bus providers including fast and reliable service, shorter walking distance to stops, low floor buses, cheaper service and friendly safe drivers. Bus operators are responding to such demands with the aim to increase their customers, and their profile.Rohani M.M (2013). Hence, and basing on the previous literature review regarding customer satisfaction we propose:

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'Give the impression of being', which the looks of the bus itself can influence passengers to choose. Whether the colours, logos, aerodynamic shape etc., this can capture the mind and decision of the passengers.

#### 2.2.3 Bus Services

#### 2.2.3.1 Punctuality

In the transportation sector service planning goes further beyond determining optimal travel cost and duration. It extends further in to meeting customer requirements and expectations. Studies have shown that these days in the transport sector punctuality takes of critical significance (Hariss, 1992, Bates*et. al.*, 2001). In railway service in addition to smoothening operations, punctuality is contributing a lot towards insuring delivery of quality service. Train stations currently, being crowded with busy multi-platform sets, it is becoming critical to have a clear understanding of the punctuality of individual travels coming in and going out (Carvile, 2003). Punctuality is a critical issue in railways as the provision of reliable arrival time most often out ways the provision of faster journey with less certain arrival times (Harris, 1992).

Punctuality in transport services can be defined as "when a predefined vehicle arrives, departs, or passes a predefined point at a predefined time" (Rudnicki, 1997). The increase in the frequency of bus use is

caused by a more positive attitude towards bus use, an increase in the habit of bus use, and a decrease in the habit of automobile use. (Fuji and Kitamura, 2003). Below proposed framework:

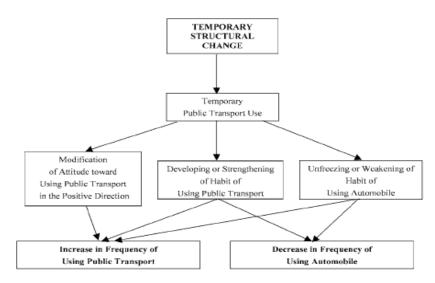


Figure 1. The process of changing to public transport use due to a temporary structural change.

Figure 2.4: Attitude Towards Bus

(Mazzulla and Eboli, 2006)analysed public transport non-use reasons survey of 176 respondents who reported reasons why they do not use public transport. The survey showed that the main reason why they do not use public transport to travel is because the low frequency condition and followed by vehicle congestion, delays and long waiting times to get the vehicle at the stop. Below the proposed reasons and non-use ranking:

The reasons for public transport non-use to ranking are:
<ul> <li>Long wait at bus stops;</li> </ul>
Overcrowded buses:
<ul> <li>Low frequency;</li> </ul>
<ul> <li>Slowness of vehicles;</li> </ul>
<ul> <li>Service unreliability;</li> </ul>
<ul> <li>Need for transfers;</li> </ul>
<ul> <li>Difficulty of carrying loads;</li> </ul>
High fare;
<ul> <li>Poor accessibility to bus stops;</li> </ul>
Other reasons.
The reasons for public transport use to ranking are:
<ul> <li>Inexpensive service;</li> </ul>
Quick service;
<ul> <li>Car nonavailability;</li> </ul>
<ul> <li>Lower risk of road accidents;</li> </ul>
<ul> <li>Difficulty of car parking;</li> </ul>
<ul> <li>Practicality (less tiring trip);</li> </ul>
<ul> <li>No driving licence;</li> </ul>
Other reasons.
Service quality attribute to ranking are:
Frequency;
<ul> <li>Number of bus stops;</li> </ul>
<ul> <li>Cleanliness of interior, seats, etc.;</li> </ul>
Comfort on bus;
<ul> <li>Security against crimes on bus;</li> </ul>
<ul> <li>Availability of shelter and benches at stops;</li> </ul>
<ul> <li>Information on services;</li> </ul>
<ul> <li>Availability of seats on bus;</li> </ul>
Other reasons.
Figure 2.5 :Non-use Ranking

Punctuality is regarded as one of the most important factors in the quality of rail operations and hence improvements in timeliness are objective in most railway companies. Punctuality depends on how all of the actors involved in railway operations perform tasks, cooperation, teamwork and internal communication between organizations railway organizations itself, it is important to achieve improved.(Veiseth, M et. al., 2011). Several studies have emphasized the reliability of the bus as an important influence on the bus market (Bates et. al., 2001). Two types of measures related to the reliability of bus services; where scheduled services are not running (lost kilometre bus) and where the time variable (poor time of travel). Emphasis at on punctualityandfollowing bus time schedule is one of the main issues that users mainly face. Service improvements that decrease walking and waiting time will result increase in ridership (Shaaban and Khalil (2013). The increasing use of public bus transportation lead to the necessity of a coordinating synchronization mechanism, in minimizing the waiting time for the passengers at the intermediate nodes, as such it is important to mitigate the problem (Saharidi, Dimitropoulos andSkordilis, 2013).

The point in time of a journey between one places to another approximately within the time estimated. For example, one's passenger takes a 9 a.m. bus to Kedah from Kuala Lumpur, which is where in that passenger mind that the bus must begin the journey at 9 a.m. sharp. Also, the same goes for the time estimated that should arrive.

#### 2.2.3.2 Customer Services

Customer service can be defined as those activities that enhance or facilitate the role and use of the product (Urbaniak, 2001). Avkiran, N, K. (1994)define customer service quality as "*perceived service quality is a global judgment or attitude relating to superiority of the service*".

Passenger convenience is more directly related to the quality of the service provided, and includes factors such as the extent of alternative travel options, the efficacy of the bus information service, and the ability and preparedness of bus operators to accommodate disabled passengers (De Borger and Kerstens 2000).

Travel mode choice does not directly depend on the objective service level of the transportation system, but on psychological factors such as beliefs, attitudes, and habits that may be influenced by the service level (VerplankenandAarts, 1999). A change in the service level may thus influence travel mode choice if and only if it influences psychological factors that the satisfaction depends on. Even if the service level does not change, travel mode choice may change if the psychological factors change.

This is how bus transportation provider dealings with the customers. In this study, the treatments given to passengers begin from the ticket counter until the bus arrived at the station intended. Nowadays, customer is quite selective concerning the services that they received. If let say that they are not satisfied with the ticket counter staffs that are being rude to them, their perception is that all the staffs representing the employer of such staff are rude. This may influence passenger decision to use that bus service again, in the future. The level of dissemination of information to passengers also influence in how the information is spread, whether in a kind of offensive manner or even inappropriate. Maintaining a high standard of quality in service and performance is of paramount importance to encourage people to make public transport their preferred choice as depicted below research output (Haron*et. al.*, 2010)

#### 2.2.3.3 Fares

Attractiveness of price competition is the extent to which users will in fact shift between competing services solely on a basis of price. Where bus services operate at a fairly high frequency, users will typically arrive at a station independently of the timetable. Their door-to-door journey time is thus minimised by taking the first bus to arrive at the stop, especially if time is measured in 'generalised time' terms in which a greater disutility is attached to waiting time than in-vehicle time (Balcombe *et. al.*, 2004) would firstly require some confidence that such a service was likely to arrive within an acceptable period of time, and also to have a relatively low value of time such that the extra wait was worthwhile. Although examples do exist of such behaviour, at typical users' values of time boarding the first bus to arrive (unless very large price differentials exist) is likely to be the economically rational behaviour.

This can be considered, as service provided by bus transportation provider is comparable with what the passengers received. It comprises of ticket price during normal period, ticket price during promotion period such as discounted ticket price, monthly ticket price etc. Let say that the ticket price is above the market price, but the punctuality is poor, passengers might decide to go to other bus transportation provider, even the entertainment provide is up to the required standard.

#### 2.3 Summary

There is growing evidence that bus service attribute is contextually importance for the bus operator to look upon. A number of studies reported that service attribute neglecting the transport industry whereby much focus are in retail and internet businesses. As such study should also look into this industry as it is equally importance in determining passenger satisfaction in the bus express industry.

#### **CHAPTER 3**

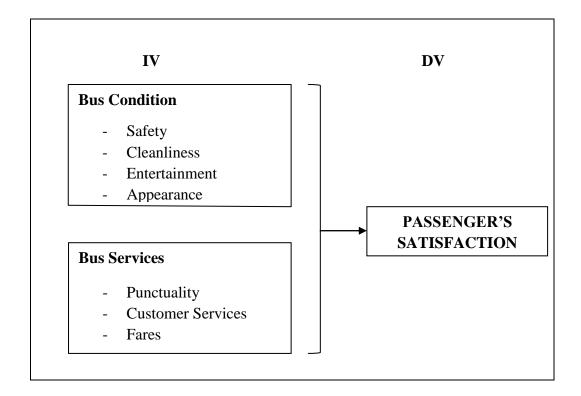
#### **RESEARCH METHODOLOGY**

#### 3.1 Introduction

In this chapter, the researcher discusses how this study is based on research needs, such as study design, study subjects, the instruments used, the procedure of the study, methods of data analysis, the research model and hypotheses.

#### **3.2** Theoretical Framework

The theoretical framework of this study is shown in figure 3.1.



**Figure 3.1- Theoretical Framework Model** 

Based on Figure 3.1 the Bus Condition and Bus Services are independent variables to be tested to see the effect and its relation to the dependent variable of Passenger's Satisfaction

#### 3.3 Hypothesis Development

Based on the research question and objectives that have been set and model studies that have been formed, one of the research questions regarding thefactors that satisfied express bus passengers to choose on which bus transportation providers to travel focusing services provided and seven hypotheses are tested in this study, namely:

These are hypothesis develop for this study:

- H<sub>1:</sub> There is significant relation betweenBus Condition Safetyand Passenger's Satisfaction
- H<sub>2</sub>: There is significant relation between Bus Condition Cleanliness and Passenger's Satisfaction
- H<sub>3</sub>: There is significant relation between Bus Condition Entertainment and Passenger's Satisfaction
- H<sub>4</sub>: There is significant relation between Bus Condition Appearance and Passenger's Satisfaction

- H<sub>5</sub>: There is significant relation between Bus Services Punctuality and Passenger's Satisfaction
- H<sub>6</sub>: There is significant relation between Bus Services– Customer Service and Passenger's Satisfaction
- H<sub>7</sub>: There is significant relation between Bus Services- Fares and Passenger's Satisfaction
- H<sub>8</sub>: There is significant influence between Bus Condition and Bus Services with the Passenger's Satisfaction

#### **3.4 Research Design**

This study used quantitative research that uses statistics as a study. This research used a survey to gather data. Quantitative data were collected using a questionnaire developed and has been test with colleagues. According to MajidKonting (1990) study design is a technique and some methods to obtain the information needed to solve the problem. The questionnaire is a tool used in this study because the data is more practical than the interview and observation (Sekaran, 2006). Descriptive studies are used to determine the frequency of respondents' gender, age, education level and years of service. It is also used to obtain the frequencies and percentages. A study of inference is used to determine the relationships, the difference between independent variables and the dependent variable. Hypotheses were tested to determine the relationship between variables, the variables selected by the study population.

#### **3.5** Operational Definition And Instrument

#### 3.5.1 Bus Passenger's Satisfaction

Customer satisfaction refers to the extent to which customers are happy with the products and services provided by a business. Satisfaction is defined as customer fulfillment (Oliver 1997). It is a judgment that a producy or service feature or a product service itself provides a pleasureable level of assumption related fulfillment including levels of under or over fulfillment (Budiono 2009). The term 'satisfaction of customer' is accepted as an important factor that determines the demand for goods/services as well as affects the competitive advantages of firms. The meaning of customer satisfaction in the service sector is different from its meaning in the goods market. Hence, the measurement of customer satisfaction in service sector is more difficult than its measurement in goods sector. The academic literature has suggested that if customers are satisfied with their chosen brands, increasingly they will be inclined to re-purchase its products or services and finally become loyal customers exhibiting strong customer goodwill.

Research has shown that customer satisfaction has a significant positive impact on customer retention, service usage, and on share of customer purchases so customer satisfaction is considered to be one the main antecedents of customer loyalty (Verhoef, 2003). Many studies have proposed and tested the relationship between satisfaction and loyalty (Kim *et. al.*, 2001) For instance, in the hotel industry (Kim *et. al.*, 2001) demonstrated that satisfaction was an important predictor of commitment and loyalty. Hence,

and basing on the previous literature review regarding customer satisfaction we propose:

#### 3.5.2 Bus Condition

#### 3.5.2.1 Safety

Passenger safety is obviously considered a priority by bus company services. Start inhibition, automatic door opening and bus materials and internal architecture are unanimously considered the top items for bus passenger safety. With the exception of driver assistance system for passenger and pedestrian safety, the perception of the importance of other driver assistance systems for vehicle monitoring and bus safety are not unanimous among bus company managers (Cafiso, S., Di GrazianoandPappalardo, 2013).The empirical findings suggest that the greatest potential gain in establishing a more positive experience would be achieved by first increasing frequency and next by enhancing personal security on the bus.

#### 3.5.2.2 Cleanliness

Cleanliness refers to the internal and external cleanliness of vehicles and cleanliness of terminals and stops. Maintaining the cleanliness of buses, bus stop and shelters usually taking care by the maintenance department. The issue of cleanliness at the bus stop refers to trash in bus stop areas falls under municipal city policy rather than bus company duty. If the garbage issue was not handling well, it wills contributes to more litter bus stop and bus station area that will affect passengers satisfaction and interest to use public transport. Cleanliness of bus interior also affects passengers' perception. According to Abdel-Aty, Kitamura andJovanis (1996), Transportation Research Board, (1999), cleanliness can be classified into 3 levels (clean, semi-clean and dirty). Based on March 1999, it was reported that 96% of rail cars entering services are semi-clean with a definition of the vehicles are swept but still had papers around. However, it was only noted that, the cleanliness refers to the vehicles before entering service. The quality perceived by public transit riders has been thoroughly investigated in recent years. A particular attention has been paid to features such as on-board comfort and cleanliness.

#### 3.5.2.3 Entertainment

The travel experience is more complex, being influenced by various such as perceptions of the service provided that drive the passenger experience, some of which are not directly controlled by the transport provider or are dependent on technologic advancements that the passengers demand, such as information provision (Carreiraet. al., 2010). Entertainment is provided in commute environments, as in many service settings, as a time filler to direct customer attention to the nontemporal stimuli presented so as to undermine temporal information processing. Moreover, amusing entertainment is able to elicit positive moods during commute.(Li, 2003). one's

Innovations associated with traditional media also offer considerable commercial potential, in part, because all electronic media are evolving rapidly, converging with other media, and becoming increasingly interactive. To combine "richness" and "reach" of multimedia channels, a user-friendly interface is critical, as is access to interactive technologies for as many potential customers as possible (Mundorf and Bryant (2002).

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#### 3.5.3 Bus Services

#### 3.5.3.1 Punctuality

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caused by a more positive attitude towards bus use, an increase in the habit of bus use, and a decrease in the habit of automobile use. (Fuji and Kitamura, 2003).

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#### 3.5.3.3 Fares

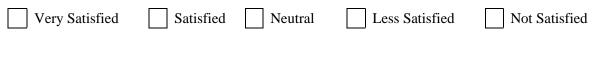
Attractiveness of price competition is the extent to which users will in fact shift between competing services solely on a basis of price. Where bus services operate at a fairly high frequency, users will typically arrive at a stop independently of the timetable. Their door-to-door journey time is thus minimised by taking the first bus to arrive at the stop, especially if time is measured in 'generalised time' terms in which a greater disutility is attached to waiting time than in-vehicle time (Balcombe *et. al.*, 2004) would firstly require some confidence that such a service was likely to arrive within an acceptable period of time, and also to have a relatively low value of time such that the extra wait was worthwhile. Although examples do exist of such behaviour, at typical users' values of time boarding the first bus to arrive (unless

very large price differentials exist) is likely to be the economically rational satisfaction.

#### 3.6 Measurement of Variables

According AlimulHidayat (2007), the establishment of an instrument or means observation study conducted by researchers carefully on the subject or phenomenon. Method of measurement is the way in which variables can be measured and determined characteristics. In 1946, Stevens observed that psychological measurement, such as measurement of opinions, usually operates on ordinal scales; thus means and standard deviations have no validity, but they can be used to get ideas for how to improve operationalization of variables used in questionnaires. Most psychological data collected by psychometric instruments and tests, measuring cognitive and other abilities, are ordinal, although some theoreticians have argued they can be treated as interval or ratio scales. However, there is little prima facie evidence to suggest that such attributes are anything more than ordinal (Cliff, 1996; Cliff and Keats, 2003; Michell, 2008).

Summary of scoring are shown below:





#### **3.7 Data Collection Method**

The research used information from questionnaire distributed to bus passengers. All passengers using busses as a mean to travel were including in these studies obtained from 384 samples.

#### 3.7.1 Descriptive Analysis

Descriptive analysis was used to determine the frequency of respondents from the perspective of gender, age and length of service, high, medium or low. Descriptive statistics were used to describe the characteristics of the variables and the respondents. Through the analysis, the researchers will describe demographic characteristics and background of the respondents in percentage and frequency.

### 3.7.2 Analysis of the Differences and Relationships of Bus Condition and Bus Services

Pearson correlation analysis was used to determine the level of significant variables between Bus Condition and Bus Services.

#### 3.8 Sampling

#### 3.8.1 SamplingDesign

In this field study, the type of sampling design will be probably convenience sampling because each types of individuals/ passengers is heterogeneous characteristics that is different kind of behaviours but within the group is homogeneous characteristics that is the same choose bus transportation as their preference to travel. A sample of 384 will be selected from two bus station where MBT's currently engaged their transportation services.

#### 3.8.2 Population

A population of 400,000 passengers a year (MLSB, 2014) has been recorded and represented by 384 sample respondents, according to Umar Sekaran (2006),.

This study is to examine and assess the factors that affect passenger satisfaction for MBT's passenger at selected bus station and this study has been made on the station namely:

#### **3.8.2.1** Terminal BersepaduSelatan (TBS Bus Terminal)

The Terminal Bersepadu Selatan (TBS Bus Terminal) is more like a state-of-the-art airport than a bus station. This terminal is very new, having opened in 2011. The TBS Bus Terminal caters specifically to

travelers headed south of Kuala Lumpur, to places such as Johor Bahru, Melaka, Singapore, and Mersing. There are two levels of convenient facilities to offer. This is quite a switch from other standard, overcrowded and stuffy bus terminals. Terminal Bersepadu Selatan will also find that other forms of public transportation are readily available. Three train services, the subway, a commuter, airport transit, and city buses run through the TBS Bus Terminal regularly, with a fleet of taxis waiting outside the terminal.

#### 3.8.2.2 Puduraya Bus Terminal

The Puduraya Bus Terminal was renamed to PuduSentral in 2011 after being completely remodeled due to extreme traffic congestion. Some of the signs directing tourists to this location have not been changed yet that could still read the former name. This is the primary bus station in Kuala Lumpur now and buses do arrive and depart from here daily for long distance trips

PuduSentral offers northbound travel only to Ipoh, Penang, Cameron Highlands, Langkawi jetties, AlorSetar, and Hat Yai in Thailand. Bus stations are connected by the LRT train line, which is situated directly behind Putra Sentral.

#### **3.9 Data Collection Procedure**

A total of 384 questionnaires were distributed to passengers' trough both terminal selected. The period prescribed by the researcher to collect the questionnaires is one month. Respondents will be briefed on the purpose of the study. Respondents should be informed that all feedback from respondents will be kept confidential and only used for this study. Respondents were asked to answer questions based on respondents' perceptions and responses only. The questionnaire takes only 10-15 minutes to be completed by the respondent. The questionnaire collected after completion of all respondents answered questions.

#### **3.10** Techniques of Data Analysis

The researcher used SPSS for analysing the data collected. In the result section, the data will be analysed in descriptive statistics in order to have preliminary ideas of the variables by describing the variable that they make sense. The measurement will be includes measures of central tendency and dispersion such as mean and standard deviation. Example of frequency distribution in term of safety, cleanliness, entertainment, appearance, punctuality, customer service and fares.

Since the findings of descriptive statistics are not predictive as it shows direction, indication or signals in analysing the data, the inferential statistics will be used to capture interaction of variables. Moreover, it used to test the goodness of measures in terms of validity and reliability and in hypotheses testing. The Regression analysis will be used for the purpose of prediction of a dependent variable from several independent variables while correlation measure correlation among independent variables and between independent variables and dependent variable.

#### 3.10.1 Pilot Sudy

The item used to measure the scale of attributes were taken from various paper related to service attributes. Discussion with my supervisors was also conducted in ensuring the content validity of the items. These item were pretested with a convenient sample of 30 passengers and data analysed using reability test to delete if any. George and Mallery (2003) provide the following rules of thumb: " $_> .9$  – Excellent,  $_> .8$  – Good,  $_> .7$  – Acceptable,  $_> .6$  – Questionable,  $_> .5$  – Poor, and  $_< .5$  – Unacceptable". Based on below are the result of 30 samples, all item meeting the minimum requirement of cronbach alpha 0.7.

#### Table 3.1: Reliability Result

#### **Case Processing Summary**

-		Ν	%
	Valid	30	100.0
Cases	Excluded <sup>a</sup>	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

#### **Reliability Statistics**

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.790	.802	21

#### **3.10.2** Confirmation study

Subsequent to pilot study, the questionnaires were distributed to the respondent at Bus Terminal. The respondent are the passenger who are commuting via bus express. Questionnaires were hand over in direct which they are in need to answer immediately. Thus, 100% response rate required.

#### 3.11 Conclusion

Overall, in chapter 3, the methodologies of the study were discussed explicitly. An explanation of how the study was conducted to guide researchers to make this study a reality and can be accepted by all parties. In addition, the discussion about population and sampling helps researchers to make more empirical study. Tests of the instrument of ratification to give more credence to the tools used in this study.

#### **CHAPTER 4**

#### FINDINGS

#### 4.1 Introduction

In this chapter, will be dealt with the analysis and decision of study that gathered based upon the objective to study in Chapter 1 and the hypotheses of study that has been formed. The result of the study will be dealt with through the argument and interpretation through statistics in detail. Data Analysis that is derived is to use Statistical Package for the Social Science (SPSS) Version 20.

The type of sampling design will be probably use is convenience sampling because each type of passengers is heterogeneous characteristics that have different kind of satisfaction, but within the group is homogeneous characteristics that is the same choose bus transportation as their preference to travel. A sample of 384 respondents will be selected from two bus station where MBT's currently engaged their transportation services.

In the descriptive analysis, researchers will describe demographic characteristics in more detail based on statistical data of respondents in percentage and frequency.

#### 4.2 Descriptive Analysis

Descriptive analysis of the respondents is based on the frequency and percent yield of collecting information obtained through SPSS shown in Table 4.1 below:

Item	Frequency	Percentages
Gender:		
- Male	129	33.6
- Female	255	66.4
Total	384	100
Age:		
- Below 18	49	12.8
- 19 - 30	161	41.9
- 31 - 45	122	31.8
- More than 46	52	13.5
Total	384	100
Income:		
- Less RM1000	150	39.1
- RM1001-2500	88	22.9
- RM2001-3500	111	28.9
- Above RM3501	35	9.1
Total	384	100
Academic:		
- Secondary and below	215	56
- Tertiary	169	44
Total	384	100
Frequency:		
- Very satisfied	123	32
- Satisfied	83	21.6
- Neutral	79	20.6
- Less satisfied	99	25.8
Total	384	100

 Table 4.1: Background of Respondents

#### 4.2.1 Distribution of Respondents by Gender

The table shows the frequency distribution and percentages of respondents by gender. The analysis results show a total of 129 people or 33.6% of the respondents are male. While the numbers of female respondents were 255 people or 66.4%. Table 4.1 shows the distribution of respondents by gender as a whole.

#### 4.2.2 Distribution of Respondents by Age

The age distribution of the study indicates the age of the respondents was divided into 4 fractions age. Overall, respondents between the ages of 19-30 are the majority of these studies with a frequency of 161 people or 41.9 %. Next, the frequency of respondents aged between 31-45 years old up to 122 people or 31.8%. Respondents aged 46 years above have a frequency of about 52 people, namely 13.5%. Finally, respondents aged below 18 years old are the minority with a frequency of 49 or 12.8%. Overall age distribution is shown in Table 4.1.

#### 4.2.3 Distribution of Respondents by Income

In terms of income, this study found a total of 150 respondents has an income of less than RM 1,000 which represented by 39.1% or represent the majority of respondents. Followed by a total of 88 respondents had incomes of more than RM 1,001 with 22.9% and income between RM 2,001 – RM 3,000 which represented by 58.9% or 111 respondents. Finally a result of 35 respondents or 9.1% recorded had incomes more than RM 3,501 per month. The overall distribution of income respondents is shown in Table 4.1 above.

#### 4.2.4 Distribution of Respondents by Academic Qualification

In qualification of education level, found that the majority of respondents have secondary and below level of education which represent a total of 215 respondents or 56%. There are a total of 169 respondents tertiary and above level of education, namely by 169%. Distribution of educational level of respondents as shown in Table 4.1.

#### 4.2.5 Distribution of Respondents by Respondents' Experience

The analysis results show a total of 97.7% of the respondents is choosing MBT base on their experience while the others with 2.3% using no judgment by their experience. Distribution of respondents experience is shown in Table 4.1.

#### 4.3 **Correlation Analysis**

In the following table is the correlation analysis for the correlation analysis between the bus condition and dependent variable satisfaction.

		Correlations				
-		Satisfaction	safety	Clean	Entertain	Appear
Satisfaction	Pearson Correlation	1	.257**	.627**	.385**	.376**
	Sig. (2-tailed)		.000	.000	.000	.000
	Ν	384	384	384	384	384
safety	Pearson Correlation	.257**	1	.116 <sup>*</sup>	.024	025
	Sig. (2-tailed)	.000		.023	.633	.618
	Ν	384	384	384	384	384
Clean	Pearson Correlation	.627**	.116*	1	.174**	.373**
	Sig. (2-tailed)	.000	.023		.001	.000
	Ν	384	384	384	384	384
Entertain	Pearson Correlation	.385**	.024	.174**	1	.254**
	Sig. (2-tailed)	.000	.633	.001		.000
	Ν	384	384	384	384	384
Appear	Pearson Correlation	.376**	025	.373**	.254**	1
	Sig. (2-tailed)	.000	.618	.000	.000	
	Ν	384	384	384	384	384

# Table 4.2: Correlation Analysis between Safety, Cleanliness, Entertainment

and Appearance to Satisfaction

\*\*. Correlation is significant at the 0.01 level (2-tailed).

\*. Correlation is significant at the 0.05 level (2-tailed).

Table 4.2 presents the the results of correlation analysis between Safety, Cleanliness, Entertainment and Appearance to Passenger's Satisfaction. From all the independent variables measured, the correlation among the variables is between weak to moderate, below 0.5 and above -0.5 which the nearest to 1 is between appearance-cleanliness (0.373) that are correlated by construction. A correlation interpretation of independent variables with the dependent variable, a moderate uphill (positive) relationship shown between cleanliness and passenger satisfaction which are the nearest to 1 (0.627). There was a weak positive relationship (<0.5) between cleanliness–safety (0.116), safety-entertainment (0.024), safety-appearance (-0.25), entertainment-appearance (0.254), cleanliness-appearance (0.373) and cleanliness-entertainment (0.174). For example, a very good condition on cleanliness may increase the way or procedure in dealing with customers.

Among the variables, cleanliness is regarded important to theh respondents followed by entertainment and appearance which is indicated by the strength of the correlation relationship.

	Correlation	IS	
		Satisfaction	Condition
Satisfaction	Pearson Correlation	1	.676***
	Sig. (2-tailed)		.000
	Ν	384	384
Condition	Pearson Correlation	.676***	1
	Sig. (2-tailed)	.000	
	Ν	384	384

**Table 4.3: Correlation Analysis between Bus Condition and Satisfaction** 

\*\*. Correlation is significant at the 0.01 level (2-tailed).

Table 4.3 show the results of correlation analysis between Bus Condition to Passenger's Satisfaction. From the independent variables measured, the correlation among the variables is a moderate uphill (positive) relationship (0.676), with above 0.5 and near to 1. For example, a very good bus condition may increase the way or procedure in dealing with customers.

		Correlations			
-		Satisfaction	Punctual	Service	Fares
Satisfaction	Pearson Correlation	1	.457**	.481**	.546**
	Sig. (2-tailed)		.000	.000	.000
	Ν	384	384	384	384
Punctual	Pearson Correlation	.457**	1	.419**	.207**
	Sig. (2-tailed)	.000		.000	.000
	Ν	384	384	384	384
Service	Pearson Correlation	.481**	.419**	1	.307**
	Sig. (2-tailed)	.000	.000		.000
	Ν	384	384	384	384
Fares	Pearson Correlation	.546**	.207**	.307**	1
	Sig. (2-tailed)	.000	.000	.000	
	Ν	384	384	384	384

**Table 4.4: Correlation Analysis between Punctuality, Customer Service** and Fares to Satisfaction

\*\*. Correlation is significant at the 0.01 level (2-tailed).

Table 4.4 presents the results of correlation analysis between Punctuality, Customer Service and Fares to Passenger's Satisfaction. From all the independent variables measured, the correlation among the variables is a weak uphill (positive) relationship between Service-Punctual (0.419), Fares-Service (0.307) and Punctual-Fares (0.207) with a result below 0.5 and above -0.5. A correlation interpretation of independent variables with the dependent variable, a moderate uphill (positive) relationship shown betweenfares-passenger's satisfaction (0.546). For example, a very good bus services on reasonable fares may increase the way or procedure in dealing with customers.

	Correlatio	ons	
		Satisfaction	BusService
Satisfaction	Pearson Correlation	1	.675**
	Sig. (2-tailed)		.000
	Ν	384	384
BusService	Pearson Correlation	.675**	1
	Sig. (2-tailed)	.000	
	Ν	384	384

 Table 4.5: Correlation Analysis between Bus Services to Satisfaction

\*\*. Correlation is significant at the 0.01 level (2-tailed).

Table 4.5 show the results of correlation analysis between Bus Services to Passenger's Satisfaction. From the independent variables measured, the correlation among the variables is a moderate uphill (positive) relationship (0.675), with above 0.5 and near to 1. For example, a very good bus services may increase the way or procedure in dealing with customers.

Hipothesis	Correlaton Results	Relationship
H1: Bus Condition –Satisfaction	0.676**	Moderate
H1a: Safety – Satisfaction	0.257**	Weak
H1b: Cleanliness – Satisfaction	0.627**	Moderate
H1c: Entertainment – Satisfaction	0.385**	Weak
H1d: Appearance – Satisfaction	0.376**	Weak
H2: Bus Service – Satisfaction	0.675**	Moderate
H2a: Punctuality – Satisfaction	0.457**	Weak
H2b: Customer Service – Satisfaction	0.481**	Weak
H2c: Fares – Satisfaction	0.546**	Moderate

 Table 4.6: Summary of Correlation Analysis

\*\*. Correlation is significant at the 0.01 level (2-tailed).

Table 4.6 above indicates that the independent variable of bus condition and bus service have a moderate relationship with express bus passengers. While each construct of the bus condition and bus service has either moderate or weak relationship with express bus passengers.

Hypotheses	Accepted / Rejected
H1	Accepted
H1a	Accepted
H1b	Accepted
H1c	Accepted
H1d	Accepted
H2	Accepted
H2a	Accepted
H2b	Accepted
H2c	Accepted
H2	Accepted

**Table 4.7: Summary of Hypotheses** 

The above Table 4.7 summarised the results of hypotheses H1 and H2 and its subhypotheses where all the hypotheses are accepted. However the relationship between the varables is between weak and moderate.

#### 4.4 Regression Analysis

#### **Table 4.6: Regression Analysis**

wiodel Summary					
			Adjusted R	Std. Error of	
Model	R	R Square	Square	the Estimate	
1	$.788^{a}$	.621	.614	.42161	

widder Summar	Model	Summary
---------------	-------	---------

a. Predictors: (Constant), Fares, safety, Entertain, Appear, Punctual, Clean, Service

Based on Table 4.6, model summary,  $R^2 = 0.621$ . This shows that 62.1% of the variation on the passenger's satisfaction (influence or not influence) can be explained

by the variation of 2 variables; Bus Condition and Bus Services, while 37.9% remains unexplained. The value from the table indicates that the model's fit to the data is good.

#### 4.5 Conclusion

Overall, in chapter 4, the methodologies of the study were discussed explicitly. An explanation of how the study was conducted to guide researchers to make this study a reality and can be accepted by all parties. In addition, the discussion about population and sampling helps researchers to make more empirical study. Tests of the instrument of ratification to give more credence to the tools used in this study.

#### **CHAPTER 5**

#### **DISCUSSION AND RECOMMENDATION**

#### 5.1 Introduction

This chapter is divided into two main discussions which is the discussion on each of the DV and IV of the study. This is followed by the recommendation for future research.

#### 5.2 Discussion

#### 5.2.1 Discussion on Bus Condition –Safety and Passenger's Satisfaction

Passenger safety is obviously considered a priority by bus company services which the operators should find greatest improvements in the rating of overall experience by emphasizing. This includessafety conditions of a bus such as a procedure in confirming to the objective of without any bus failure or breakdown, accident, fatality (Cafiso*et. al.* 2013, Hensher, Mulley andYahya, 2009 and Amadoriand Bonino, 2012). This study confirm to the previous studied made which the result as shown in Table 4.2 and Table 4.3 suggested safety can influence the level of satisfaction of the passengers thus resulting to the decision of which transport operator to choose from.

## 5.2.2 Discussion on Bus Condition – Cleanliness and Passenger's Satisfaction

According to Abdel-Aty, Kitamura and Jovanis (1996), Transportation Research Board, (1999), cleanliness can be classified into 3 levels (clean, semi-clean and dirty). The cleanliness, refers to the vehicles before entering service as it was reported in March 1999 that 96% of rail cars entering services are semi-clean with a definition of the vehicles are swept but still had papers around. A positive weight indicates that a very clean bus adds to utility the equivalent of its importance weight compared to a bus that is not perceived as very clean (Hensher, Stopher and Bullock, 2003). This study confirms the previously studied made which the result as shown in para 4.2 and 4.3 suggested cleanliness can influence the level of satisfaction of the passengers thus resulting to the decision of which transport operator to choose from.

# 5.2.3 Discussion on Bus Condition – Entertainment and Passenger's Satisfaction

Entertainment is provided in commute environments, as in many service settings, as a time filler to direct customer attention to the contemporary stimuli presented so as to undermine temporal information processing. As Li (2003) said amusing entertainment is able to elicit positive moods during one's commute. Compared to the thought of Mundorf and Bryant (2002) said that to combine "richness" and "reach" of multimedia channels, a userfriendly interface is critical, as is access to interactive technologies for as many potential customers as possible. This study confirm to the previous studied made which the result as shown in Table 4.2 and Table 4.3suggested entertainment can influence the level of satisfaction of the passengers thus resulting to the decision of which transport operator to choose from.

### 5.2.4 Discussion on Bus Condition – Appearence and Passenger's Satisfaction

Passengers are satisfied over the new bus and the bus design that is equipped with ultra-low flooring and bus cleanliness.(Haron*et.al.*,2010). The results of the pilot survey show, passenger satisfaction equal to that achievable with a new vehicle, however, can also be achieved with an older vehicle, provided that the driver's work is outstanding. An ageing bus need not be in poor condition even though in this particular instance, it was as along the operator substitute with other attributes. This study confirm to the previous studied made which the result as shown in Table 4.2 and Table 4.3suggested appearances can influence the level of satisfaction of the passengers thus resulting to the decision of which transport operator to choose from.

# 5.2.5 Discussion on Bus Services – Punctuality and Passenger's Satisfaction

An increase in the frequency of bus use is caused by attitude, habit of bus use, and a decrease in the habit of automobile use as per study made by Fuji and Kitamura (2003). Mazzulla and Eboli (2006) suggest one of the reason why public did not travel by public transport was a low service frequency followed and long waits at the stop. Punctuality is claimed to be one of the most important quality factors by Veiseth*et.al.* (2011) but based on this research outcome didn't confirm to what has been studied by the researcher as per result in Table 4.4 and Table 4.5suggested entertainment can influence the level of satisfaction of the passengers thus resulting to the decision of which transport operator to choose from.

## 5.2.6 Discussion on Bus Services – Customer Services and Passenger's Satisfaction

Passenger convenience is more directly related to the quality of the service provided as suggested by De Borger and Kerstens (2000) as compared study by VerplankenandAarts (1999) which psychological factors such as beliefs, attitudes, and habits which may influence the service level. Maintaining a high standard of quality in service and performance is of paramount importance to encourage people to make public transport in their preferred choice as suggested by Haron*et.al.*(2010). This study confirm to the previous studied made which the result as shown in Table 4.4 and Table 4.5suggested customer services can influence the level of satisfaction of the passengers thus resulting to the decision of which transport operator to choose from.

#### 5.2.7 Discussion on Bus Services – Faresand Passenger's Satisfaction

Attractiveness of price competition is the extent to which users will in fact shift between competing services solely on a basis of price. Where bus services operate at a fairly high frequency, users will typically arrive at a stop independently of the timetable. Balcombe *et. al.* (2004) suggested their doorto-door journey time is thus minimized by taking the first bus to arrive at the stop, especially if time is measured in 'generalised time' terms in which a greater disutility is attached to waiting time than in-vehicle time. This study confirm to the previous studied made which the result as shown in Table 4.4 and Table 4.5 suggested customer services can influence the level of satisfaction of the passengers thus resulting to the decision of which transport operator to choose from.

#### 5.3 Recommendation

On 22 April 2004, Minister of Entrepreneur & Co-operative Development has agreed that all new and additional routes are reviewed so that it can reduce the total costs incurred at current level. He has notified his intention that MARA will administer all small Bumiputera Bus Transportation Entrepreneurs. A huge allocation fund compared with the previous year will be provided as high as 210% increase in year 2005. Another change is that the motive; where stage bus will set for social responsibility while express bus set for profit motive, compared with previous time that both are set for social motive

However, this study does not present evidence on the relation between service provided in term of punctuality, customer service, cost appropriateness, entertainment and bus appearance as the p-value in the regression analysis is insignificant although there was weak positive and negative correlation between those variables in the initial result analysis. Other independent variables measured such as safety and cleanliness show there was significant relationship between those independent variables the likelihood passengers to be influenced whereby it can be concluded that the greater the chances passengers will be influenced when they notice the cleanliness of the bus and their reputation in term of bus safety.

Although the evidence does not support the likelihood for of punctuality, customer service, cost appropriateness, entertainment and bus appearance would influence the way passenger's reacts which perhaps support the mechanism of bus transportation providers in the way their current operating, but I found out that cleanliness of the bus and their reputation in term of bus safety have significant influence the likelihood passenger's to behave. Therefore, this study becomes a pioneer literature to the next researcher for focusing the other mechanism of sound for bus transportation provider's performances.

Therefore, as for MBT's, based on the findings above, their marketing strategies in conformity with profit motive for express busses should meet up below objectives;

- Creating an image or values of MBT as a key player in the bus transportation industry in Malaysia.
- Holding the majority share of market in the bus transportation industry in Malaysia.

MBT should manipulate the mechanism that influence passengers most in the findings, which issafety and cleanliness and support with punctuality,

customer service, cost appropriateness, entertainment and bus appearance that are, still correlated with each other.

Among the marketing tactics that may work are:

#### i) Product

Bus, in conformity with the findings should be cleanliness over time. Not only that, the looks' may also be changed or modified to alter the shape of the products' life cycle and at the same manipulating other variables to support the looks'. The quality of services not only affects the image and the price that can be charged but also business profitability. This does not necessarily mean that passengers in all instances desire the highest quality of services. Rather it does mean that various segments associated with any market will attract customers for high quality products and for those at the low end of the scale. Both can be extremely profitable. At current, for every region, even within the region, the looks' is not consistent, whether the color, image or even the name of the bus and furthermore, level of breakdown is high due to the bus condition that becoming older.

#### ii) Price

Meet-the-competition pricing involves introducing a product or service at about the same level as theirs competitor. MBT must differentiate in some other way, which is by increasing service quality and bus condition (low breakdown), bundling many benefits together to increase the value of the overall (cleanliness, safety reputation entertainment system, etc), and charging approximately the price that would accrue/ pay if these components were ordered separately. Otherwise there is no reason for passengers to switch from competitive competitors price. Other pricing consideration includes promotional pricing that is lower price than base price for a certain occasion. Care must be taken to differentiate between the promotional price and base price, as it would be difficult to sell at the baseline price once the promotional period ended.

#### iii) Place

Location of distribution is the place of departure, workshop and spare-part suppliers for MBT. A supplier is required when there is a need of spare part item whenever there is a mechanical breakdown or even normal service or examination of busses. A list of suppliers should be determined first, especially within the area of operation. Any mechanical breakdown should be dealing within appropriate time. If let say that there is a malfunction of one bus in one area, it affect the schedule that already set at the first place, thus can reduce the level of passengers confidence in future. Place of departure should be at the place where easy to go and all needed thing can be obtained such as tickets, schedule information, taxi service etc. At current, the spare part suppliers for MBT, majority needed item is located at Kuala Lumpur. At this point, a lot of time *slaughter* just to wait for the item to arrive and loss quit amount of potential profit. Passengers current trend is at declining.

#### iv) Promotion

MBT should concentrate on the advertising and publicity as the mean of promotion. This tactics must be employed because no matter how good the products or service, there will be no sales if the potential buyer or prospect has never heard of it and therefore cannot consume it. Being one of the government agencies, much of MBT operations would depend with the amount of allocations/ funds that will be received. At this moment, there is no indication that there is a marketing movement. Through survey just within the Kuala Lumpur area, a majority doesn't even know the existence of MBT. To make matterworst, 'Transnasional', among the main rival in bus transportation industry are believed to be owned by MARA which indirectly increase their competitor image and reputation.

**Five** keys issues will determine whether MBT use of advertising and publicity will be successful (William A. Cohen, 1987):

- a) Where to spend
- b) How much to spend
- c) When to spend
- d) What to say
- e) How to measure results

The answer to these questions depends on MBT overall advertising and publicity objectives, target market and the broad alternative for reaching the advertising objective on which MBT has decided.

In conclusion, not just expanding the market throughout Malaysia but efforts to enhance awareness can also enhance MBT reputation. This can be done by delivering a quality and up to date services from passengers' expectation through understanding MBT mission statement that is 'provide the best services to passengers'. Manipulating the significant variables and support with the other insignificant variables might be useful in influencing the passengers to choose MBT as their main transportation to travel. Further studies are needed to investigate the differences between all variables as the weak relationship that exist due to time constraint to complete this research.

Above all, the challenge for MBT is to build on the existing sound foundations of corporate strength and continue to inculcate a culture of self-belief and to develop the staff of integrity and efficient to ensure that MBT continues to have competitive edge in transportation business environment.

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