



**A STUDY ON PUBLIC TRANSPORT QUALITY OF SERVICE FROM USER
POINT OF VIEW (CASE STUDY: KOTA KINABALU)**

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ABSTRACT

On 9 July 2009 the government introduces the "Government Transformation Plan" (GTP), which one of the agenda from six of "National Key Result Area" (NKRA) is to improve urban public transportation system in Malaysia. The common transportation system in Malaysia is now at level not satisfactory because almost every day all media will talk about how bad transportation system now days in Malaysia. The good transportation system should have a punctual schedule system, offering affordable fares, provide comfort to the user, less waiting time and also provide safe journey to the passage that board the bus. This all kind of features should be providing to the transportation system in order to attract people to use public transport. This study about point of view bus service in Kota Kinabalu. This study will produce a consumer perception of bus transport services. This study also aimed to get feedback on the user perception towards services and user satisfaction about the features on the bus services. In addition, the survey was also to identify improvement the need to be added and forwarded from the aspect of existing services and facilities. 43% use city bus every day, while 42% use this on weekends only. On the result it shows in terms of comfort, the user indicates that the three aspects that need to be repaired is clean city is a major problem with the eye -163 bus, bus curtain (-66), air conditioning (-92) and the best services and friendliness of staff with the average of 177. In terms of convenience result, 75% respondent said the fares is affordable, while 24% say it was expensive. Next result is waiting time, 57% respondent said they were waiting the bus about 5-10 minutes, second is 20% waiting about 10-15 minutes, 17% waiting for 15-20 minutes. Since the bus is not clean, so city bus need to improve of their cleanliness of bus and replace to new curtain and service of bus aircond.

ABSTRAK

Pada 9 Julai 2009, kerajaan memperkenalkan "Pelan Transformasi Kerajaan" (GTP), yang salah satu agenda dari enam daripada "Kawasan Keberhasilan Utama Negara" (NKRA) adalah untuk menambah baik sistem pengangkutan awam bandar di Malaysia. Sistem pengangkutan lazim di Malaysia adalah kini pada tahap tidak memuaskan kerana hampir setiap hari semua media akan bercakap tentang bagaimana sistem pengangkutan yang teruk di Malaysia. Sistem pengangkutan yang baik harus mempunyai sistem jadual menepati masa, menawarkan tambang berpatutan, memberi keselesaan kepada pengguna, masa yang kurang untuk menunggu dan juga menyediakan perjalanan yang selamat untuk laluan yang menaiki bas. Kesemua jenis ciri-ciri perlu disediakan kepada sistem pengangkutan di negara ini bagi menarik ramai orang menggunakan pengangkutan awam. Kajian mengenai pandangan orang ramai yang menggunakan perkhidmatan bas di Kota Kinabalu. Kajian ini akan menghasilkan persepsi pengguna perkhidmatan pengangkutan bas. Kajian ini juga bertujuan untuk mendapatkan maklum balas kepada persepsi pengguna terhadap perkhidmatan dan kepuasan pengguna mengenai ciri-ciri mengenai perkhidmatan bas itu. Selain itu, tinjauan ini adalah juga untuk mengenal pasti peningkatan keperluan untuk ditambah dan dikemukakan dari aspek perkhidmatan dan kemudahan sedia ada. Kepada keputusan kami menunjukkan bahawa bas digunakan 43% bandar setiap hari, manakala 42% penggunaan ini pada hujung minggu sahaja, hasilnya lain adalah tentang tambang, 75% responden berkata tambang adalah berpatutan, manakala 24% mengatakan bahawa ia adalah mahal. Hasil seterusnya masa menunggu bus pula, 56% responden berkata di sana menunggu bas kira-kira 5-10minit, kedua 20% menunggu kira-kira 10-15minit, 17% menunggu 15-20minit

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Population growth has resulted in population density occurs in the city and this causes traffic usage by consumers has also increased which in turn give rise to the problem of traffic congestion in the City. Increase the use of private vehicles is caused by the movement of people who want a simple, fast and not tied to a fixed rate if the comparative by using public transport. Delays and comfort of public transport users (Siti Faridah, 2011) also are factors that make the private car as the preferred provider. To meet the need for comprehensive public transport enhancements of the system itself must be done in tandem with the advent of globalization and the development of the City in Malaysia.

Public transport is physically one of the alternative facilities for users with no other option to move. As a country that is being developed as well as developing rapid transport system should be updated and the brace to ensure the progress of a region is delayed due to the weakness of the public transport system. Therefore, the government sought to restore the power of public transport services to the user with various reforms such as upgrading the public stops existing, changing the old vehicle to the new vehicle, creating a kind of a more efficient transportation system and provide benefits such as discounts to attract the public to use public transport.

There is several factors can contribute to the effectiveness of the system of public transport in Malaysia. Among the factors identified areas timeliness, safety, fares and comfort of users. These factors form the core of effective public transport system to the point of importance to achieving the transformation agenda of the public transport system in Malaysia.

1.2 Problem Of statement

Good public transport system is the system that can meet the demand and provide comfort and able to be used by all levels of society. Public transport not only the medium used to connect, a place to another place, but it also is one of the mediums used to facilitate the users and reduce traffic congestion.

Study quality service for urban bus in this research is to determine the level of user satisfaction with services rendered by 'City Bus' which provides services in the city of Kota Kinabalu. Indicators to be used in measuring the level of bus service relates to user satisfaction, fare, long waiting and safety of bus users.

Problem identified in this study are related to public transport system which related to consumer satisfaction in term of comfort and convenience. The major problem for this study is stated below:

- i. They were several things that need to done and related to the bus service by city bus at Kota Kinabalu state.
- ii. Increasing of used for public transport, especially for longest route which Kota Kinabalu –Sepanggar since there is a place of education center this route to determine the level satisfaction by consumer that using public transport.
- iii. Chief Minister on July 5, 2013 said "The Government is committed to the realization of various projects and initiatives to improve and enhance the public transportation system in the state. Chief Minister Datuk Seri Musa Aman said the government will continue to develop the infrastructure and facilities to support public transport to provide comfort to the people of this state”.

1.3 Objective

The main objective of this study was to obtain feedback related to user satisfaction with the services provided by "Citybus" the leading provider of bus services in the city of Kota Kinabalu

Other objectives of this study were as follows:

- i. To study the level of satisfaction of the user that's using the urban bus (City Bus) at Kota Kinabalu.
- ii. To identify the improvement that should be made by 'Citybus' for user convenience in the future.

1.4 Scope of study

The scope is in the city of Kota Kinabalu to choose a user of the service "City Bus" provider of public transportation in the city of Kota Kinabalu. The survey will ask for the user to answer the questions that have been prepared and the study area is the entire route in the city of Kota Kinabalu which is provided by "City Bus". This study will cover the entire bus route in Kota Kinabalu which to know the level of satisfaction among the user that used 'Citybus' as their transportation.

1.5 Significance of study

This study will be able to find out all the problems that arise and dissatisfaction with the services by 'Citybus' in Kota Kinabalu City. The management should be more concerned about the complaints that increased public demand for user and the choice of consumers. With this study, hopefully the management will improve all the problems that arise and take all the complaints from users so that the users are more comfortable with these services of city buses. It also can be used as reference in the future.

CHAPTER 2

Literature Review

2.1 Malaysian Public Transport System

Despite being a developing country, Malaysia has been recognized as having a relatively good transportation system, especially for its road network. The entire 51,045 km paved roads in Malaysia are well planned and maintained, and provide easy access to Malaysians throughout the country (Ibtishamiah, 2007). Rapid urbanization in the developing countries has often been accompanied by the increased need for urban travel. Increased levels of economic activities coupled with the spatial spread of cities beyond their traditional limits have led to an increase in trips made, often considerably longer in distance than before (Jamilah and Ibtishamiah, 2002). An increased in economic growth and personal incomes have enabled many urban residents to possess their own motor vehicles, be it private cars or motorcycles, to improve their access to urban services (Roza et al. 2006).

Improving the quality and the efficiency of the public transport is indeed important in order to attract more people especially for those who use private vehicles. According to Abdul Rahim and Nor Ghani (2006) deteriorate one of public transportation use in Malaysia, especially on bus services together with the affection for personal cars results in people, particularly the middle and high income, shying away from public transport, especially the bus. On the other hand, Paulley et al. (2006) and Sathre (2011) described a range of factors affecting the demand for public transport, concentrating on the influence of fares, quality of service, income and car ownership.

2.2 Issue and Problem on Public Transportation in Malaysia

In Malaysia, many issues and problems are the main constraint in achieving a good quality of life in the city. Population growth requires not only more jobs, demand for housing, social facilities, but also increase the number of vehicles on the roads and highways (Haryati Shafii, 2003). Demographic changes through natural growth and migration has increased demand for transport facilities to move. This study raised the issue of the use of modes of transport facilities in the city for quality of life and cause disruption and psychological impact on the environment and population. Transport is one of the most important causes that contribute to environmental pollution, especially air pollution in urban areas.

This problem is not only related to the mode of transportation, but also involves a dangerous road structures such as the absence of road dividers, road damage and potholes, uneven roads, lack of a proper traffic signals, traffic congestion can affect physical and human psychology and some other effects (Haryati Shafii 2009). This type of conditions can cause the available urban feel uncomfortable, upset, anxious, tired / lethargic, difficult to interact and serious concern when every day they had to use the road at the workplace, the supermarket, service centers or any only important in the business did not have a choice other users.

Apart from that, public transportation is available in larger cities such as Kuala Lumpur, sometimes unable to provide satisfactory service and a maximum score to the user. Quality of service is not satisfactory as inconsistent itinerary, number of passengers too much congestion on the bus and monorail, bus frequency is too long, no air-conditioning (if any equipment is broken and does not work), no "notice board" the bus ride the next table and so on. These conditions are found make serious caused difficulties for consumers. There are times when a user tries to switch to public transport modes, but the services offered are not satisfactory. When user tries to continued use of private vehicles it turned out to be more difficult when too had to face long traffic jams, fatigue, and so on.

2.3 Public transport at Kota Kinabalu, Sabah

Public Transport in Kota Kinabalu is very important due to the socioeconomic population is seen still require public Transport as a medium of communication. In fact, it is also a function of the needs of people to work, school, market and recreation. Generally, public transport available in Kota Kinabalu is as follows:

2.3.1 CityBus

Citybus is a bus in the city that has been allowed to operate starting in 2009. At the start of Citybus, the responses were overwhelming and encourage us due to the cheap price and new vehicles. The path of penetration by Citybus also includes routes that are densely populated as Sepanggar, Kota Kinabalu-Kota Kinabalu-Likas, Kota Kinabalu-Penampang, Kota Kinabalu- Tanjung Aru and Kota Kinabalu in the city itself. Starting in 2010 Dewan Bandaraya Kota Kinabalu allows only Citybus to through the streets of Kota Kinabalu, to reduce traffic congestion.

2.3.2 Taxi

One of the major transportation medium, that being used in Kota Kinabalu city. It's comfortable because of traveling not in groups or with strangers. But the expensive fares led taxi service is only used by those who can only afford.

2.3.3 Mini Van

Minivans are among the major public transport still in use up to now, the Mini Van is usually like to travel in each time without a lapse of time and the passenger density is only 12 to 15 persons. Fares are also quite a bit expensive compared to Citybus services. Advantages of Mini Van are it going through the neighborhoods and passengers can stop in front of the home without having to travel long distances.

2.4 Quality of Service on Bus Transport

The service quality of bus is an important factor to increase public transportation service demand. The more punctual bus operates, the more passengers using this service. Growing traffic congestion, the need to preserve the environment and the problems of road safety are the main reasons to be considered for the improvement in public transportation services. To provide a good public transport services, travel schedule of each bus should be provided and adhered by all drivers. From earlier observation, the current bus system has a punctuality problem where passengers waiting time became longer at bus stop before bus arrive. Therefore, private transportation still the main transportation mode in this country. As a result, its bring many problems to the society and the environment such as congestion, high accident rate, shortage of parking spaces, low air quality and high maintenance cost to maintain transportation infrastructure and facilities (Madzlan et al, 2010).

They are some of the indicators used to determine the quality of service state below:

2.4.1 Route Planning

A public transport system must accommodate a very large number of individual trips. It's not possible to provide direct public transport routes to meet all requirements but it's possible to go a long way towards achieving this by providing a network of routes, so that passengers can make complex journeys by using a combination of routes.

Many transport systems consist of routes planned in isolation rather than as parts of coordinated networks. This is usually unsatisfactory for meeting the requirements of a significant proportion of travelers. Poor route planning may result in poor route coverage, an excessive requirement for interchange between routes, and irregular frequencies.

Others route networks have been designed to provide convenient links between all points where there is demand. Some have been designed to meet predetermined standards or criteria such as a maximum number of interchanges between routes on any journey.

2.4.2 Walking Distance

In most cities, the main public transport corridors radiate outwards from the central area, with routes branching from these corridors to serve points on either side. The number of these branches will be partly influenced by the nature of the road system, and by policy and market forces. If people are not prepared to walk long distances, bus routes will need to penetrate further into residential areas than otherwise.

Similarly, if there are parallel roads along a corridor, a decision must be made whether or not to concentrate all routes along one road, or to split them between the two roads. The first alternative will give a higher frequency of service, and therefore less passenger waiting time. But it could mean greater average walking distance, and perhaps increased traffic congestion. The second will give lower frequency, and longer average waiting times, but shorter average walking distances.

2.4.3 Number of Transfers (Interchanges)

It's often necessary for passengers to transfer from one bus route to another during a journey. This is particularly common, where routes are linked to operate across the city center. Some systems are designed on the hub-and-spoke principle requiring a high proportion of passengers to transfer at central points.

At points where large numbers of passengers regularly transfer, facilities such as purpose-built off-road bus stations, or roadside bus stops with shelters, perhaps linked by pedestrian bridges or subways, should be provided.

Bus stations should be located so buses do not have to deviate significantly from their routes. However, with good route planning, it should be unnecessary for the majority of passengers to transfer between bus routes in the City Centre, and extensive interchange facilities should not be required. Off-street bus stations in city centers are, in any case, often a wasteful use of expensive land. Although this may be offset by the development of property above the station, but poor interchange facilities will aggravate the inconvenience for passengers having to transfer from one bus route to another route.

2.4.4 Fare

Public transport fares are regulated in most developing countries, and enforcement is often more stringent than for any other regulation. The regulations may specify actual fares to be charged; a maximum permitted charge, or a charge for a basic service that operators are permitted to exceed at their own discretion for premium services. Different fare levels may be authorized to reflect different service standards.

Several reasons may be given for controlling bus fares. The stated objective is often that it ensures that fares are affordable. Where an operator has a monopoly, the objective may be to prevent the abuse of monopoly powers.

If there are many operators on one route, the objective may be to prevent the stronger operators from forming cartels to force the weaker ones out of the market by charging uneconomically low fares and then exploiting their oligopoly. Where there are several operators it may also be desirable to ensure that fares are consistent on each route.

There is considerable disagreement about whether fare control is necessary to protect passengers from exploitation by unscrupulous operators, or whether it distorts the market to the passengers' disadvantage.

In fact, fare control, while designed to protect passengers' interests by preventing operators from charging fares, which they cannot afford, often has the opposite effect. Inappropriate control of bus fares has caused numerous problems, and has brought about the demise of bus companies in many parts of the world.

In cases where an operator folds after a government, with the best of intentions, prevented it from increasing fares to a sufficient level to sustain services, passengers may ultimately pay more. This can occur when a new service operating in the underground economy fills the void left by the regulated operator. Higher fares, often for inferior service, are often the result.

2.4.5 Scheduling

Public bus is usually run on a fixed route and schedule, serving specified bus stops or bus stations. Some services may be semi-flexible in that they can vary where they stop on a fixed route by operating in a hail and ride away. The route and schedule of some services may also be flexible to some degree. Researcher from TCQSM studied the more frequent the service, the shorter the wait time when a bus is missed or when the exact schedule is not known, and the greater the flexibility that customers have in selecting travel times (Madzlan et al, 2010).

2.4.6 Punctuality

The good bus is which have quality in time and punctuality. The time necessary for the time that has followed is described in the itinerary as the information board. Punctuality is a gap between actual arrival time and arrival time schedule. Several studies have been conducted on time performance analysis of public bus service. A case study in Seoul conducted by Seung et al (2005) concludes that the punctual performance during the weekend when where was no traffic congestion is higher than those of the weekdays.

2.4.7 Frequency

The best urban bus as a public transport is when the frequency can accommodate the total of passenger in every time of service. Refer to Sebayang et al (2005) the best frequency of bus service within 15 minutes which 4 buses in 1 hour.

2.4.8 Waiting Time

The best Bus waiting times should be around 15 minutes in average of 4 buses in an hour. These waiting times are one of the important things need to be studied because we will know if the service are really good or bad actually.

2.4.9 Comfort

Comfort during the journey is important for transit users, both the physical comfort regarding vehicles and comfort regarding ambient conditions on board or at stops. Comfort on board means having soft and clean seats, comfortable temperature, not many people on board, smoothness of the bus ride, low levels of noise and vibrations, not nasty odors. These many factors are differently evaluated across different groups of users (Laura et al, 2009). Beirao and Sarsfield-Cabral (2007) found that habitual public transport users consider the new vehicles with air-conditioning and lower floor as “very good and very comfortable”, but the overcrowding on board at peak hours is considered a problem. On the other hand, car users and occasional public transport users usually see buses as uncomfortable, overcrowded, smelly and airless.

2.4.10 Cleanliness

Laura et al (2009) state the cleanliness, refers to the physical condition of vehicles and facilities, and specifically the cleanliness of the bus interior and exterior, having buses and shelters clean of graffiti, cleanliness of seating and windows, and so on. Clean buses tend to promote a good public image and help to attract and maintain ridership (Laura et al 2009).

2.4.11 Safety

Safety issues were found by Smith and Clark (2000) as a constraint for people to choose public transport as a travel mode of choice. Pick pocketing, overcharging facilitates by overcrowding and lack of supervisor is important factors. UK Department for Transport (2009) reported that young people (mostly male) involved in assaulting behavior, theft, vandalism and criminal damage are a problem for public transport users (Oktiani, 2009).

CHAPTER 3

METHODOLOGY

3.1 Introduction

The method of analysis is done to achieve the targets set out in the objectives that have been discussed previously in Chapter 1. These data are then processed and converted into a form easily understandable information. The data obtained are centered on the responses given by the respondents who answered the questions that have been provided. After that, this section will discuss the study area, formulate questions Criteria, Data Collection and analysis of data for this study.

3.2 Location of study

To achieve the objectives stated earlier, a study area was selected for this process. After doing some research, the number of potential areas, this study has chosen to do a review of the services provided by Citybus the major companies that have been providing bus service in the city of Kota Kinabalu. City Bus Service is covering almost the entire route in Kota Kinabalu City. Review and distribution of the questionnaire cover consumers who will use the service on all routes provided by city buses. The map of route service by City bus shown in figure 3.1 and figure 3.2 below:

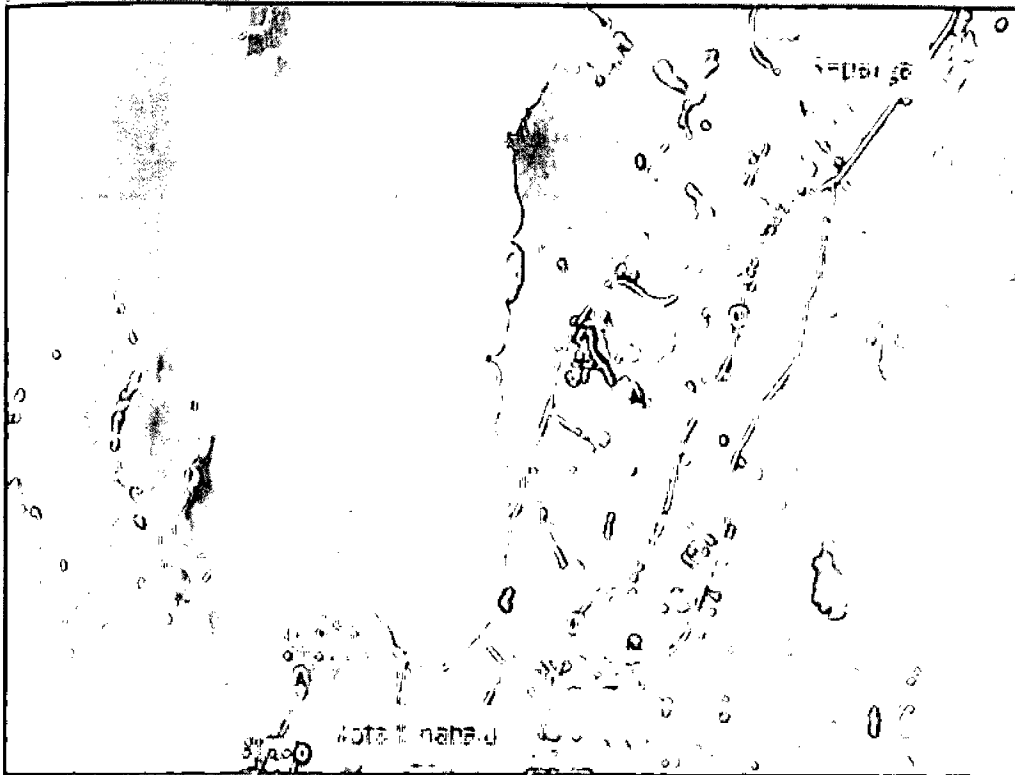


Figure 3.1: Map Of City Bus Route Kota Kinabalu-Sepanggar

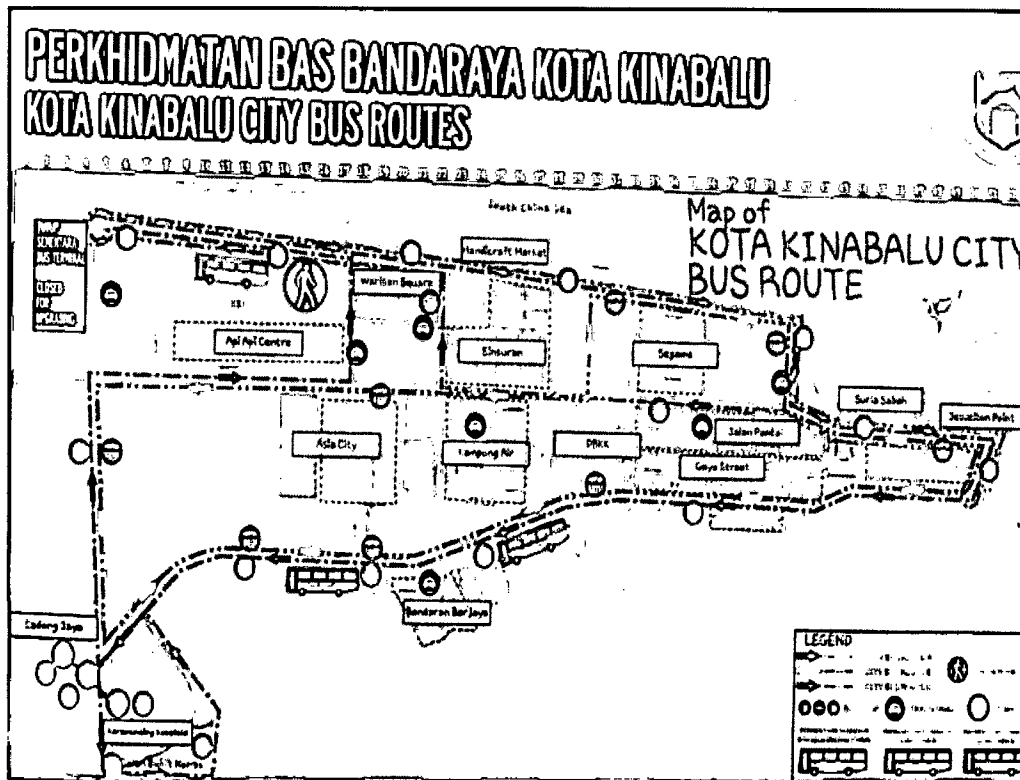


Figure 3.2: City Bus Service Route A, Route B and Route C

3.3 Questionnaire Design

Research questions on the form based on the appropriateness of the objectives mentioned earlier. We know that the public is not interested in answering questions, therefore this question is built to facilitate them to answer without burdening respondents. As for the question of this study, it is designed based on three main components:

3.3.1 Part A

In this section is designed based on the respondent's personal information or demography such as age, gender, work status, origin and destination user travel. This question is to know what the main purpose respondents are taking the bus and also the direction the respondent to go.

3.3.2 Part B

Part B will be discussed in relation to the comfort and convenience to the users of bus services in the comfort of bus users will be given a question related to the air conditioner, the bus curtains, and the cleanliness of buses, bus service information and any other questions related to user comfort. This section requires the user to select a range of options available Very satisfied, satisfied, dissatisfied and very dissatisfied.

The convenience of the user, the Respondent is required to mark the answers that were available The answer is given by the Respondent will enter into excel and analyzed to obtain a graph to show the level of the facility is to provide convenience and benefits to consumers or whether it should be repaired and further upgradeable.

3.3.3 Part C

The Respondent is to create a space for improvement in selecting deem necessary to improve the quality of service and service provided by the City Bus Kota Kinabalu.. Respondents could only choose the options that are provided, but if there is a suggestion that the selection should be done and feel not found in the list, the Respondent may recommend the other box provided.

3.4 Size of Sample

The sample size for this study is based on the schedule Cohen et al. (2001) and Rosmawati (2011) that the show below in figure 3.3:

Required Sample Size								
Population Size	Confidence = 95%				Confidence = 99%			
	5.0%	Margin of error			5.0%	Margin of Error		
		3.5%	2.5%	1.0%		3.5%	2.5%	1.0%
10	10	10	10	10	10	10	10	10
20	19	20	20	20	19	20	20	20
30	28	29	29	30	29	29	30	30
50	44	47	48	50	47	48	49	50
75	63	69	72	74	67	71	73	75
100	80	89	94	99	87	93	96	99
150	108	126	137	148	122	135	142	149
200	132	160	177	196	154	174	186	198
250	152	190	215	244	182	211	229	246
300	169	217	251	291	207	246	270	295
400	146	265	318	384	250	309	348	391
500	217	306	377	475	285	365	421	485
600	234	340	432	565	315	416	490	579
700	248	370	481	653	341	462	554	672
800	260	396	526	739	363	503	615	763
1,000	278	440	606	906	399	575	727	943
1,200	291	474	674	1,067	427	636	827	1,119
1,500	306	515	759	1,297	460	712	959	1,376
2,000	322	563	869	1,655	498	808	1,141	1,785
2,500	333	597	952	1,984	524	879	1,288	2,173
3,500	344	641	1,068	2,565	559	977	1,510	2,890
5,000	357	678	1,176	3,288	586	1,066	1,734	3,842
7,500	368	720	1,275	4,211	610	1,147	1,900	5,183
10,000	370	727	1,332	4,899	622	1,193	2,098	6,239
25,000	378	760	1,448	6,939	646	1,285	2,399	9,972
50,000	381	772	1,491	8,056	655	1,318	2,520	12,455
75,000	382	776	1,506	8,514	658	1,330	2,563	13,583
100,000	383	778	1,513	8,762	659	1,336	2,585	14,227
250,000	384	782	1,527	9,248	662	1,347	2,626	15,555
500,000	384	783	1,532	9,423	663	1,350	2,640	16,055
1,000,000	384	783	1,534	9,512	663	1,352	2,647	16,317
2,500,000	384	783	1,536	9,567	663	1,353	2,651	16,478
10,000,000	384	784	1,536	9,594	663	1,354	2,653	16,560
100,000,000	384	784	1,537	9,603	663	1,354	2,654	16,584
300,000,000	384	784	1,537	9,603	663	1,354	2,654	16,586

Figure 3.3: Sample Size Determination

Based on information provided by a Sinar Mustika Enterprise, the average daily number of passengers overall upward City Bus Service in Kota Kinabalu is a total of 5000-6000 people per day. Based on the above table, taking into account the amount of error that occurred and was allowed, then the amount distributed is questionnaire a total of 375.