

CUSTOMS, IMMIGRATION AND QUARANTINE COMPLEX FACILITIES FOR  
THE DISABLED  
CASE STUDY : BANGUNAN SULTAN ISKANDAR, JOHOR BAHRU, JOHOR

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## DEDICATION

*I dedicate this master project to my precious family especially...*

*To my beloved husband, Abu Bakar Abd Hamid who always with me and support me  
in hardship and easiest time....*

*To my lovely mother, who always support me...thank you mom for always gives me  
encouragement whenever I need it...*

*Also to my big brother, Fauzi thanks for all your advices to me.....*

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## ABSTRACT

The disabled often experience problems in their everyday live due to the accessibility factor especially in public buildings. The Customs, Immigration and Quarantine at Bangunan Sultan Iskandar, Johor Bahru, Johor is not only used by the non-disabled, but also used by the disabled that need more appropriate facilities compared to non-disabled. However, there are some issues and problems associated with the facilities provided at the Bangunan Sultan Iskandar especially on the problems of facilities for the disabled. The study was conducted at the Bangunan Sultan Iskandar, Johor Bahru, Johor to identify the level of satisfaction and the level of importance for the parameters of the facilities provided for the disabled. The findings from this study will provide information to the management of Bangunan Sultan Iskandar to improve the facilities provided to the disabled. The respondents in this study are the elderly who need help from others to move and the questionnaire was used as the research instrument. The findings were analyzed by using Cronbach's Alpha, the frequency calculation and the importance index calculation. The study found that there are several parameters that should be adopted to improve the level of satisfaction and the level of importance of a facility such as accessibility (for functionality criteria), design (for the functionality, safety, health and security criteria), information (for security criteria) and also ergonomic (for comfort criteria). The study also found a significant relationship between the satisfaction levels with the importance level of these parameters. The satisfaction level of the disabled towards the facilities performance in Bangunan Sultan Iskandar is very important to improve the image of the building. The findings suggested that the management of Bangunan Sultan Iskandar to assess the facilities performance for the disabled in the future.

## ABSTRAK

Orang kelainan upaya selalu mengalami masalah dalam menjalani kehidupan seharian mereka disebabkan oleh faktor kemudahsampaian terutama di bangunan-bangunan awam. Kompleks Kastam, Imigresen dan Kuarantin di Bangunan Sultan Iskandar, Johor Bahru, Johor bukan sahaja digunakan oleh orang normal malah digunakan oleh orang kelainan upaya yang memerlukan kemudahan fasiliti yang lebih bersesuaian dengan jenis kecacatan berbanding orang yang normal. Namun, terdapat beberapa masalah yang berkaitan dengan fasiliti yang disediakan untuk orang kelainan upaya di Bangunan Sultan Iskandar. Kajian ini telah dijalankan di Bangunan Sultan Iskandar, Johor Bahru untuk mengenalpasti tahap kepuasan dan kepentingan parameter bagi kemudahan yang disediakan untuk orang kelainan upaya. Hasil kajian ini dapat memberikan maklumat kepada pihak pengurusan fasiliti Bangunan Sultan Iskandar untuk memperbaiki kemudahan yang disediakan untuk orang kelainan upaya. Sampel kajian adalah terdiri dari warga emas yang memerlukan pertolongan daripada orang lain untuk bergerak dan menggunakan borang kaji selidik sebagai instrumen kajian. Dapatan kajian dianalisis dengan menggunakan kaedah Cronbach's Alpha, pengiraan frekuensi dan index kepentingan. Hasil kajian ini mendapati bahawa terdapat beberapa parameter yang perlu digunapakai bagi mempertingkatkan tahap kepuasan serta tahap kepentingan sesuatu kemudahan seperti kemudahsampaian (untuk kriteria keberfungsian), rekabentuk (untuk kriteria keberfungsian, keselamatan, kesihatan dan sekuriti), informasi (untuk kriteria sekuriti) dan ergonomik (untuk kriteria keselesaan). Hasil kajian ini juga mendapati terdapat hubungan di antara tahap kepuasan dengan tahap kepentingan parameter ini. Tahap kepuasan orang kelainan upaya terhadap sesuatu kemudahan di Bangunan Sultan Iskandar adalah sangat penting bagi mempertingkatkan lagi imej bangunan tersebut. Kajian ini juga mencadangkan agar pihak pengurusan Bangunan Sultan Iskandar supaya menjalankan penilaian terhadap prestasi fasiliti untuk orang kelainan upaya pada masa akan datang.

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## LIST OF ABBREVIATIONS

BIFM	-	British Institute of Facilities Management
BOMI	-	Building Owners and Managers
BSI	-	Bangunan Sultan Iskandar
CIQ	-	Customs, immigration and quarantine
DDA	-	Disability Discrimination Act
DPI	-	Disabled Peoples' International
FM	-	Facilities Management
GLAD	-	Greater London Action on Disability
IFMA	-	International Facilities Management Association
JKM	-	Jabatan Kebajikan Masyarakat (Welfare Department)
JKR	-	Jabatan Kerja Raya
KLIA	-	Kuala Lumpur International Airport
LCCT	-	Low Cost Carrier Terminal
MS1184	-	Code of Practice for Access for Disabled to Public Buildings
MS1331	-	Code of Practice for Access for Disabled to Outside Buildings
MS1183	-	Code of Practice for Means of Escape for Disabled
POE	-	Post Occupancy Evaluation
PWDA	-	Persons with Disabilities Act
PWD's	-	Persons with Disabilities
UN	-	United Nations
WHO	-	World Health Organization

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## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 Introduction**

Disability has always been a kind of burden to persons that have it. The disabled are always faced with barriers in everything they do. The disabled are likely to have problems to go somewhere and even to get a job. There is a form of discrimination among the people towards the disabled. The problems involving the disabled always occur whether in the workplace or in moving around. There is a barrier towards the disabled in getting suitable facilities for them to get around. Without suitable facilities provided for the disabled, they cannot move around easily and face with difficulties in running their daily affairs.

According to the United Nations (2006), disability results from the interaction between persons with impairments and attitudinal and environmental barriers that hinder their full and effective participation in society on an equal basis with others. While the definition for persons with disability includes those who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others (United Nations, 2006).

According to the Unescap (2003), the disabled refer to people with a physical, hearing or sight impairment or any combination thereof, which affect their mobility outside buildings or their use of buildings and related amenities. Besides sight, hearing and physical impairments, mental illness and the elderly are also defined as disabled because of their disability. Ageing is related to the term “Persons with Disabilities” (PWDs) (Asiah Abdul Rahim and Nur Amirah Abd. Samad, 2010).

In 2012, statistic shows that there are 405,441 disabled people registered in Malaysia (Jabatan Kebajikan Masyarakat, 2012).

## **1.2 Problem Statement**

Disability is always been an issue to the society. Not many people recognise and take considerations towards the needs and requirements of the disabled especially in providing and managing the best facilities to them. The facilities provided for the disabled are either in minimal requirements or not provided at all. According to the statistics by the WHO (2012), around 15% of the world’s population, or one billion people, live with disabilities. This figure will increase from time to time because of the ageing factor.

Accessibility and mobility within the built environment has become an issue for the disabled (Jabatan Kebajikan Masyarakat Negeri Melaka, 2012). Considerations on the design and provision of facilities for the disabled at the Customs, Immigration and Quarantine Complex (CIQ Complex), Bangunan Sultan Iskandar, Johor Bahru, Johor have recently become an issue. As a high-impact building and the southern gateway into Malaysia, Bangunan Sultan Iskandar is deemed as unfriendly to the disabled. Problems occur when the disabled have to walk for a long way to get their passports stamped. Without a proper facilities



provided to the disabled, they cannot move around easily and this will make their movements limited. People have argued about the facilities provided in Bangunan Sultan Iskandar especially for the disabled.

Probing further into the issue mentioned in the last paragraph, the researcher conducted a preliminary study through observation with several respondents involved in the preliminary study. The observation technique is often used in simple walk-through post occupancy evaluation surveys for auditing of space and facilities (D. Jaunzens, R. Cohen, M. Watson, F. Maunsell and E. Picton., 2002). The information obtained from the preliminary study then incorporated into the main study.

According to Polit, Beck and Hungler (2001) a preliminary study can be used as a 'small scale version or trial run in preparation for a major study' (Simon, 2011). The preliminary study had been carried out by taking out 5 respondents from each type of disabilities such as the sight impairment disabilities, hearing impairment disabilities, the disabled using the crutches, the disabled using the wheelchair and the elderly to validate the problems and issues occurred at Bangunan Sultan Iskandar.

Each of the respondents had been asked about the facilities provided for the disabled in Bangunan Sultan Iskandar. From the preliminary study, several issues had been identified. In this study, the preliminary study was important steps in the overall research process in order to validate the main issues at Bangunan Sultan Iskandar. Table 1.1 shows the issues that have been identified from the preliminary study.

Table 1.1 : Summary of the preliminary study

	Issues	Description
1.	Insufficient facilities for disabled people like seats and seating area	<ul style="list-style-type: none"> <li>• Because of the long route from JB Sentral to the Immigration Checkpoint, no seats available for disabled people to take a rest</li> </ul>
2.	Signage Problem	<ul style="list-style-type: none"> <li>• The signage in Bangunan Sultan Iskandar is only available for people with no sight impairment problem.</li> <li>• There is no Braille available even in the lifts.</li> <li>• The colour and size of the signage also a problem for the disabled people.</li> </ul>
3.	Some of the toilet for the disabled is un-useable	<ul style="list-style-type: none"> <li>• The toilets for the disabled people were provided but cannot be used because there are cleaning equipments inside the toilets.</li> <li>• The toilets are not properly maintained.</li> </ul>
4.	No ramps provided at the bus waiting area	<ul style="list-style-type: none"> <li>• In Bangunan Sultan Iskandar, no ramps provided at the bus waiting area for those who use wheelchair.</li> </ul>

From the preliminary study, the problems of the facilities provided for the disabled have been identified. The pedestrians using the facilities in Bangunan Sultan Iskandar have to walk a long way to get their passports stamped by the Malaysian Immigration. The pedestrians must take the escalator four times to get to the Malaysian Immigration counters. According to Michael Tay, Johor Bahru MCA

Public Complaints Bureau Deputy Chief, many Malaysians using public transport to Singapore also complained about having to take the long walk along the new CIQ (The Star, 2010). For the disabled, the difficulty is even more substantial. Figure 1.1 shows the long route for the users in Bangunan Sultan Ismail to go to Singapore.



Figure 1.1 : The long route for pedestrian users to walk to go to Singapore

The long walk means that the disabled have to take a rest before continuing their journey to the immigration checkpoint. Without enough facilities like seats and seating areas, their journey will certainly get disrupted. The seats are only available at the lobby area in Bangunan Sultan Iskandar before entering JB Sentral. There is no place where the disabled can take a rest before entering the immigration checkpoint. Figure 1.2 shows that only certain places got seats.



Figure 1.2 : Seats are available but only at the lobby of the Bangunan Sultan Iskandar before entering JB Sentral. Source : Persatuan Penolong Pegawai Tanah Pulau Pinang

From the preliminary study, the researcher has also found that the signage in the building itself is not user-friendly especially for those with sight impairments. The signage has a dull colour and the arrow of the signage is unclear. This will cause difficulties not only for the disabled but also for non-disabled who use the facilities in Bangunan Sultan Iskandar. Figure 1.3 shows that the signage in Bangunan Sultan Iskandar is unclear and hard to see.

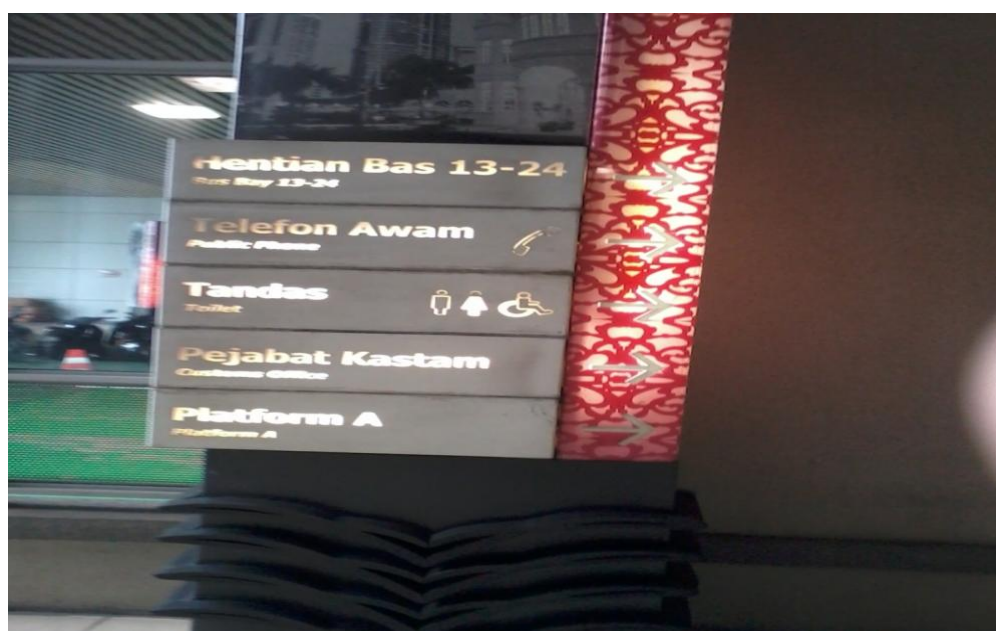


Figure 1.3 : The signage in Bangunan Sultan Iskandar without clear arrows

Besides that, the researcher also found that facilities for the disabled like the toilets are not reserved for them to use. Even though the toilets are provided, the cleaner has placed the equipment for cleaning in the toilet that makes the toilet not useable for the disabled. According to Ragesh Kumar Lingam, the toilets inside the CIQ complex are not properly maintained (The Star, 2011).

The facilities provided in Bangunan Sultan Iskandar are also not user-friendly for the disabled especially for those who use buses to go to Singapore. Even though lifts are provided for disabled people to go downstairs to the bus, ramps are not provided for those in wheelchairs to board the bus. This causes difficulties and barriers to the passengers who are disabled. From the preliminary study also, the researcher found that without the ramp, the disabled people using the wheelchair have to be help by other people to get on the bus. Figure 1.4 : The picture shows that no ramp available for disabled people especially for those who use wheelchair.



Figure 1.4 : Bus stop without a ramp for disabled people to ride a bus.

Source : [http://www.carneyz.com/2008\\_12\\_01\\_archive.html](http://www.carneyz.com/2008_12_01_archive.html)

As can be seen in Table 1.1, the findings from the preliminary study show that several facilities problems had been occurred in Bangunan Sultan Iskandar. No literatures or research has been conduct to overcome these problems. There is still a

gap where there are problems occurring in Bangunan Sultan Iskandar but no one has conducted a study about the problems.

As one of the high impact-building in Malaysia, Bangunan Sultan Iskandar should not fail in providing the facilities for the users including the disabled. The satisfaction level of the users; in this case, the disabled, should be in the priority in the management of Bangunan Sultan Iskandar. Not all users in Bangunan Sultan Iskandar are able to use the facilities provided.

In order to perform well, Bangunan Sultan Iskandar should take into considerations the facilities performance parameters for the disabled to ensure the satisfaction of the users. If the facilities performance parameters are taken into consideration, the disabled as the user will feel satisfied. So, it is important for a study to be conducted to identify the facilities performance parameters that are required for the disabled. The provision of the facilities for the disabled should consider the facilities performance parameters for the disabled. Besides that, the facilities performance parameters for the non-disabled are also different from the facilities performance parameters for the disabled. The facilities performance parameters for the disabled should be clearly identified and clarify to ensure the information can be used in a more comprehensive manner. In short, there is a need to identify the facilities performance parameters for the disabled especially in public buildings.

Adding to the scenario, there has been no studies on the views of the disabled on what performance criteria and parameters that needs to be evaluated in the evaluation of facilities performance. This study could be a useful guide for the Government in order to provide the facilities for the disabled at the public buildings. The importance of each facilities performance parameters for the disabled can be a tool for the Government to prioritize each facilities provided for the disabled.

In summary, the issues that are addressed in this research are:

- i) Facilities provided for the disabled in Bangunan Sultan Iskandar did not meet the needs and requirements of users with disabilities.

### **1.3 Research Objectives**

Based on the issues and problem statements, the objectives of the study are as follows:

- i. To identify the facilities performance parameters for the disabled
- ii. To identify the satisfaction level of the disabled towards the facilities performance in Bangunan Sultan Iskandar
- iii. To rank the importance level of facilities performance parameters for the disabled required in Bangunan Sultan Iskandar.

The objectives of this research are divided into three progressive steps:

- i. To identify the facilities performance parameters for the disabled**

For the first objective, the facilities performance parameters for the disabled had been identified from various literature reviews. The facilities performance parameters are important in this study because the problems as mentioned earlier in the problem statements can be solved. The facilities performance parameters for the disabled found in the literature were used in the preparations of the questionnaires to achieve the second and the third objective.

**ii. To identify the satisfaction level of the disabled towards the facilities performance in Bangunan Sultan Iskandar**

Objective 2 aims to identify the satisfaction level of the disabled who used the facilities provided in Bangunan Sultan Iskandar. The satisfaction level of the disabled used the facilities performance parameters were found from Objective 1. It will benefit the Government and the management of Bangunan Sultan Iskandar to determine the level of satisfaction of the disabled towards the facilities performance provided in Bangunan Sultan Iskandar.

**iii. To rank the importance level of facilities performance parameters for the disabled required in Bangunan Sultan Iskandar.**

The aim for the third objective was to rank the importance level of the facilities performance parameters required for Bangunan Sultan Iskandar. In order to prioritize the best parameters of facilities performance required for Bangunan Sultan Iskandar, the importance level of each performance parameters were identified. This will give the information to the Government and the management of Bangunan Sultan Iskandar about the priority and ranking for each criterion.

#### **1.4 Scope of Research**

The scope of study is based on the research objectives which are to identify the facilities performance parameters for the disabled, the satisfaction level of the disabled towards the facilities performance in Bangunan Sultan Iskandar and the



importance level of each parameter for Bangunan Sultan Iskandar. This study will be only take Bangunan Sultan Iskandar, Johor Bahru, Johor as the case study and involved the facilities provided in Bangunan Sultan Iskandar for the disabled because:

- i. Bangunan Sultan Iskandar, Johor Bahru as one of the highest total number of users in Malaysia. According to AMPM (2012), for the past couple of years, the total number of users in the BSI Complex was approximately 90 million per year, out of which more than 10 million are tourists.
- ii. Bangunan Sultan Iskandar is one of the high impact buildings in Malaysia. Bangunan Sultan Iskandar cannot fail in providing the facilities to the users including the disabled.
- iii. Based on the people argument, the study was conducted to prove that there is problems occur for facilities provided in Bangunan Sultan Iskandar. This study will cover the dissatisfaction issues faced by the disabled using the facilities in Bangunan Sultan Iskandar. The satisfaction levels were identified using the second objective.
- iv. The respondents only involved the elderly as one of the types of disabled. The respondents were selected from only one type of disabilities because of none respondents from other types of disabilities that were found while distributing the questionnaires. The respondents were selected from age 60 and above only with several disabilities such as using the crutches, wheelchairs and cannot walk properly and need the assistance. This is because at the time of distributing the questionnaires, only the elderly had been responded to the questionnaires.

- v. The study only focuses on the user satisfaction level and the ranking of the importance level of the facilities performance parameters for the disabled.
- vi. Limited time and cost factors for data collection. The questionnaires had been prepared for 100 sets but only 35 respondents responds.

There is no research yet that study about the facilities performance requirements in Bangunan Sultan Iskandar, Johor Bahru, Johor. But there are several researches that study about the satisfaction level and facilities for the disabled in public buildings. In the study conducted by Syazwani Abdul Kadir and Mariam Jamaludin (2012), they focus on user's satisfaction level and perception on accessibility of public buildings in Putrajaya for the disabled. While Asiah Abdul Rahim and Nur Amirah Abd. Samad (2010) conducted a study on accessible built environment for the elderly and disabled in Malaysia with hotels as their case study.

Previously the complex was known as Customs, Immigration and Quarantine Complex but now it is known as Bangunan Sultan Iskandar. Bangunan Sultan Iskandar can afford to support 500,000 people per day using its facilities and services provided. Bangunan Sultan Iskandar is not only providing facilities and services to the Malaysians but also to the tourists using the route to go to Singapore and from Singapore to go to Malaysia. The statistics by Jabatan Imigresen Malaysia shows that the number of people from Singapore or other countries going into the city through the Causeway is gradually increasing.

Bangunan Sultan Iskandar is not only becomes the place for the Malaysian but also for the tourists to go to Malaysia. The facilities provided at Bangunan Sultan Iskandar can show the good image to the tourists. The facilities provided should also take into consideration of the needs and requirement for the disabled. While Malaysia promotes itself as a tourist destination, it should also provide amenities for disabled tourists (Anthony Thanasayan, 2007). Among the tourists,

they will include the disabled family members or the tourist himself is having disabilities. Without proper facilities provided by the authorities of Bangunan Sultan Iskandar, the tourists will come into difficulties in order to go to Malaysia.

## **1.5 Importance of Research**

This study were conducted to identify the facilities performance parameters for the disabled, the satisfaction level of the disabled towards the facilities performance in Bangunan Sultan Iskandar and the importance level of each parameters to the Bangunan Sultan Iskandar. The research contributes to:

**i) Identifying the facilities performance parameters for the disabled especially in public buildings**

This will make the government and the authorities to realize the problems faced by the disabled people using the facilities provided in Bangunan Sultan Iskandar. The study will help the authorities and the responsible parties to improve the facilities especially the facilities for the disabled not only in Bangunan Sultan Iskandar but also in other public buildings.

**ii) Identifying the satisfaction level of the disabled towards facilities performance provided in Bangunan Sultan Iskandar**

The satisfaction level of the disabled towards the facilities performance in Bangunan Sultan Iskandar can give benefit to the Government and the management of Bangunan Sultan Iskandar to

identify the level of satisfaction of the disabled. This is important in the evaluation for future decision making in facilities planning.

**iii) Clearly determine the importance level of each facilities performance parameters needed for the disabled in Bangunan Sultan Iskandar**

This research can be the encouragement for the Government and the responsible parties to consider and realise the importance of providing and managing the facilities for disabled especially in causeway route that connect two countries; Malaysia and Singapore. Besides that, from this research also, the government can improve the image of Malaysia Tourism among the international tourists. This will add value to Malaysian Government to attract more tourists to use Bangunan Sultan Iskandar to visit Malaysia.

**iv) As a guidelines for the management and the facilities management services provider of Bangunan Sultan Iskandar in order to provide facilities for the disabled**

As mentioned earlier, there is no study had been conducted yet in determining the facilities performance parameters especially for the disabled. Therefore, the findings from this study can be a guideline to the management and the facilities management services provider of Bangunan Sultan Iskandar in order to provide the facilities for the disabled as required and fulfil the needs of the disabled.

## 1.6 Research Methodology

The research had been carried out in three main phases as in Table 1.2.

Table 1.2 : Research Methodology

<b>Objectives</b>	<b>Methodology</b>	<b>Analysis Techniques</b>
1) To identify the disabled facilities performance parameters	1) Literature Review	
2) To identify the satisfaction level of the disabled towards the facilities performance in Bangunan Sultan Iskandar	1) Questionnaire preparations 2) Sampling (Respondent selection) 3) Data collection 4) Data analysis 1	1) Cronbach's Alpha Reliability Test 2) Frequency Calculation
3) To rank the importance of facilities performance parameters for the disabled required for Bangunan Sultan Iskandar.	1) Questionnaire preparations 2) Sampling (Respondent selection) 3) Data collection 4) Data analysis 2	1) Frequency Calculation 2) Importance Index Calculation

In the first phase, the research methodology aimed to identify the disabled facilities performance parameters from various literatures that were used in achieving the second and the third objectives. The facilities performance criteria and its parameters for the disabled then were used to prepare the questionnaires and analyzed in the second phase. In the third phase, the same facilities performance parameters were used in the set of questionnaires prepared for achieving the third objective, ranked into the ranking accordingly to their importance level. More discussion on the research methodology was detailed out in Chapter 3.

## **1.7 Chapter Arrangement**

This research will be divided into several chapters and arranges according to few stages :

- i. Chapter 1 : Introduction

In chapter 1, the problems and issues were identified based on reading and literature review. These actions included the facts from the articles, journals and other current sources such as internet to get the problems statements and issues. To make the issues more valid, the researcher had done a pilot study to validate the problems. In addition, the objectives, the scope, and the importance of the research were also included in this chapter.

ii. Chapter 2 : The Disabled and Facilities

Chapter 2 will discuss about the disabled and the types of disabilities. Besides that the facilities performance parameters that are suitable for the disabled was also being note in this chapter. This chapter were done by reading books, journals, magazines, articles, thesis, government website and other sources.

iii. Chapter 3 : Research Methodology

This chapter explained in detail the methodology used for this research, how to collect data and how to analyze data using several techniques.

iv. Chapter 4: Data analysis

Chapter 4 present the analysis and the results of the collected data through the questionnaires. Based on the findings, the parameters for the facilities performance for the disabled can be determined.

v. Chapter 5: Result and Discussion

This chapter will present the results based on data analysis in Chapter 4 and further discussions on the relationship between findings.

vii. Chapter 6: Conclusion and recommendation

In this final chapter, the conclusions of the findings and the result achieved from the conduct research were concluded. Few recommendation and suggestion for further studies were listed as well.

## **1.8 Summary**

Finally, in this chapter it discusses on how to conduct the study and the implementation of the study. The chapter consist of the problems statement, the research objectives, the scope of research, the importance of research, the research methodology used in this research and also a summary of the chapters' arrangements in this study. It will be a guideline to respective parties to use this research.



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