

An Assessment of Person with Disabilities at Vivacity Megamall, Kuching in Sarawak

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Abstract

In Malaysia, the increasing number of persons with disabilities (PWD) has created a demand for the provision of adequate special facilities in public buildings. Evaluation is a process to evaluate the facilities owned by the organization to determine the appropriate specifications based on Malaysian Standard Guidelines (MS) and Uniform Building By Law (UBBL). In addition to that, the assessment of the facilities provided in the building is also the basis for ensuring that the specifications that need to be followed are met. There are some facilities provided in public buildings nowadays that are still lacking and unsatisfactory. In addition, there are some facilities that do not follow the MS and UBBL. The purpose of this study is to identify the facilities provided for the disabled and the purpose of the study is to analyze the facilities provided for the PWD according to the MS and the UBBL. This study uses primary and secondary methods with assessment at Vivacity Megamall using a checklist based on the MS. Checklist as a instrument, visual inspection/assessment as a method are used as research instruments. Next, a questionnaire will be used to find out the satisfaction and experience of disabled customers who visit the shopping center. In this study, it is hoped that the management of Vivacity Megamall can provide good cooperation throughout the research. The data obtained is expected to help the management to obtain less data. Based on the data obtained, the management can also identify problems with facilities provided for PWD in addition to helping to ensure the provision of such facilities in a state that satisfies customers. In conclusion, programs or activities involving the association of disabled people need to be held regularly and continuously in shopping centers so that they do not feel marginalized or neglected.

Keywords

Person with Disabilities , Malaysian Standard Guidelines , The Uniform Building Bylaws

1. Introduction

Vivacity Megamall is located about 10 minutes from downtown Kuching. The Vivacity Megamall construction project was completed and opened to the public on November 12, 2015. It is the largest premium shopping destination in Sarawak. The five-story iconic structure has a net leasable area of 820,000 square feet,

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compared to 1.2 million square feet of gross floor space. The Vivacity Megamall concept comes from the word 'Vivacity' which means 'lively and animated'. Another feature of Vivacity Megamall is the 400 meter long open dining or lifestyle area where all outlets will operate until midnight. The Setia City Mall in Shah Alam, Kuala Lumpur, was also created by Archicentre, one of the top architectural firms in Malaysia. The goal of Vivacity Megamall is to quickly improve Kuching's shopping environment. With 3,800 parking spots in the basement, podium and top, each with its own entry and exit, parking is intended for ease and safety.

Shopping centre constructed environments must be handicap accessible in order to support impaired individuals in carrying out daily activities [1]. A person who is physically impaired has a chronic illness that significantly restricts one or more physical tasks, such as walking, climbing stairs, reaching, lifting, or carrying [2]. The experience and level of impairment are significantly influenced by the situational environment. Barriers that prohibit persons with disabilities from fully and effectively participating in society on an equal basis with everyone else are frequently created by inaccessible surroundings. As a result, the government of Malaysia and the commercial sector as well as non-governmental organisations are working together to ensure full and effective participation. For example, the government and the private sector together provide adequate and best facilities in shopping malls for the disabled and continuous attention is paid so that the facilities can be used effectively and facilitate the implementation of their daily activities with the normal community in the center shopping [3]. They may feel restricted to or inconvenienced in their use of buildings due to physical obstructions such as steps or doors which are too narrow for wheelchairs, lack of facilities such as ramps, elevators, staircase, handrails and absence of suitable facilities [4]. The Malaysian Standard is an important tool that provides recommendations for constructing facilities that are accessible to people with disabilities. The Malaysian Standard should focus on those who use wheelchairs (of any sort, whether or whether they are accompanied), crutches (including arm amputees in practise), are blind (including those with limited vision), deaf (including those with impaired hearing), or both [5]. There is a lack of detailed data on the accessibility of facilities for people with disabilities at Vivacity Megamall. This study aims to identify the facilities provided for the disabled, which affects them if the facilities are not provided according to the MS and UBBL. The implementation method is to take data at the study site. The results of the study will help to conclude whether the facilities provided are satisfactory or need to be improved. Therefore, it is important to monitor the facilities for disabled people provided at Vivacity Megamall to ensure that they follow the MS and UBBL.

2. Literature Review

A person with disabilities (PWD) who may be prevented from participating fully and equally in society because of physical, sensory, intellectual or mental impairments. The term "disability" refers to a broad range of ailments and difficulties that may impair a person's mobility, communication, intellect, or capacity for performing daily tasks. PWD were further defined in the person with disabilities (PWD) Act of 2008 and they now include seniors, individuals with disabilities and pregnant women [6]. A person said to become disabled at the point when society disregards their human rights and excludes them from all life processes, including social and infrastructure development, whether on purpose or accidentally, as a result of social biases and environmental barriers, as highlighted in [7].

Due to the variety of activities they might provide, shopping malls may be one of the most well-liked public or tourist destinations with considerable human traffic [8] stated in his study that shopping centers should make it possible for PWD consumers to go about the mall securely by establishing an efficient signage system that provides accessibility for all people inside the building.

2.1 Person with Disabilities (PWD) Act 2008 (Act 685)

PWD must be given the same access to and use of public facilities, amenities, and services as those without disabilities, as required by Part III of Act 685. The government and the providers of such public facilities, amenities, services and buildings are required to give appropriate consideration and take necessary measures to ensure that these public facilities, amenities, services and buildings, as well as the advancement of the equipment related to them, is in compliance with universal design. [9].

Therefore, it is now a legal necessity to guarantee that public or private entities plan for all parts of society when doing renovations or refurbishments in order to allow access for all society members. Designing for structures other than private residences also necessitates considering how people will enter and exit the building [10].

2.2 Guideline Malaysia Standard (MS)

The Malaysian Standard is an important tool that provides recommendations for constructing facilities that are accessible to people with disabilities. The Malaysian Standard should focus on those who use wheelchairs (of any sort, whether or whether they are accompanied), crutches (including arm amputees in practise), are blind (including those with limited vision), deaf (including those with impaired hearing), or both. [5]. All buildings have to comply to the established MS, which has been in place since 1900, as well as any applicable compliance requirements and restrictions. All of us, regardless of the situation. The many laws, rules, and MS that deal with using facilities with handicapped access are included in Table 1 below.

Table 1: Guideline Malaysia Standard (MS)

Malaysian Act	Description
The Persons with Disabilities Act 2008 (Act 685)	The Persons with Disabilities Act 2008, which was approved in December 2007, is Malaysia's first law addressing the welfare and charity of PWD. Part III of Act 685 mandates that people with disabilities have the same access rights to the use of public facilities as those without disabilities.
Uniform Building (Amendment) By Laws(UBBL) 1991	This requirement is stated in the UBBL, which is governed by the 1974 Street, Drainage and Building Act. According to the UBBL updated section 34A, buildings must provide access for PWD to enter, leave, and remain on the property. This section covers both new and historic structures. In three years, the current building will be updated.

3. Methodology

The methodology started with the process of finding reference material or information related to this study. The references and information were retrieved from the most up-to-date and appropriate sources for review. To ensure the quality of this study, the process of identifying related sources of reference and information is crucial. Figure 1 illustrates the methodology flow chart for this study.

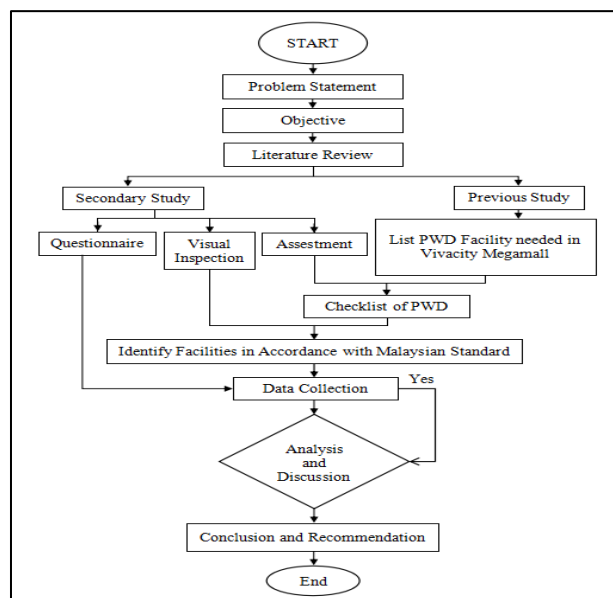


Figure 1 : Flow Chart of Methodology

3.1 Research Location

The study location is at Vivacity Megamall, Kuching in Sarawak. The method of data collection this study involves 2 methods of data can be obtained by making a visual survey on the building based on the method of assessment of the situation and questionnaires. There are two groups of methods for gathering primary data: qualitative and quantitative. It allows for the disclosure of secondary data gathering techniques through information found in books, journals, periodicals, and web portals.

There are three (3) types of data analysis process used in this study. First, the data will be examined through a survey methodology by determining the type of disabled facilities provided at the study site. Second, using observational data, a checklist was conducted to determine whether the facilities for the Disabled accessible at Vivacity Megamall meet the standards set in Malaysian Standards 1184: 2014. Third, a questionnaire will be distributed to obtain the final results for analysis. Data analysis was performed using the Statistical Package for Social Sciences version 26.0 (SPSS). By using (SPSS), the data obtained is analyzed in the form of average index and percentage. The data that has been analyzed is presented with the help of diagrams, graphs and charts to facilitate the presentation of the results obtained.

Data collection location selection criteria is based on the type of facilities, namely disabled parking spaces, walkway, ramp, disabled toilet, signage, doorway/main entrance, guiding block/tactile, handrail, staircase, escalators/elevators, and reception counter. That can be reached were all measured and evaluated using the guiding principles of the latest Malaysian standards for accessibility (MS 1184: 2014). For the purpose of the case study, this location has been visited. The research produced a checklist with the current access status, facility metrics, and suggestions for additional actions.

Questionnaires are used for the purpose of measuring certain concepts related to attitudes, perceptions and views other than background explanations. As a result of interviews with technical workers of the facility in the building, the average number of visitors for people with disabilities is approximately 40 to 50 people per day. Based on the visitor data above, table Krecjie Morgan is used to determine the value of respondents in need. The questionnaire will be distributed to 44 respondents who are disabled people or their guardians who come to shop at Vivacity Megamall.



Figure 2 : Area of study

4. Results and Discussion

This comparative data will help in drawing conclusions to obtain the necessary information. The research methodology used in the study to collect data and information to meet the objectives of the study. In doing the site visit, analysis and discussion were done. Examining the data allows for analysis and discussion. As a result, the data is represented. Then, to determine whether the list of PWD facilities is sufficient as a Malaysian standard or not. To achieve results, site visits have followed the listed list.

4.1 Results

Table 1 below shows the list of disabled persons (PWD) facilities provided at Vivacity Megamall. Of the 12 facilities found in the study, there are some facilities that are not provided at a certain level. Among them is that the disabled toilet is not provided on the ground level (G). Facilities that are very important for the blind, such as guiding block and tactile, are not provided in the building. Reception counters like other shopping center buildings only provide on the lowest ground (LG) according to the specifications set by MS and UBBL.

Table 1 : Result of The Facility for PWD. [11]

No.	Level Floor	G	LG	1	2	3	4
1	Disabled Parking Spaces	/	/	/	/	/	/

2	Walkway	/	/	/	/	/	/
3	Ramp	/	/	/	/	/	/
4	Disabled Toilet	X	/	/	/	/	/
5	Signage	/	/	/	/	/	/
6	Doorway and Main Entranced	/	/	/	/	/	/
7	Guiding Block and Tactile	X	X	X	X	X	X
8	Handrail	/	/	/	/	/	/
9	Staircase	/	/	/	/	/	/
10	Escalator	/	/	/	/	/	/
11	Elevator	/	/	/	/	/	/
12	Reception Counter	X	/	X	X	X	X

: Qualification

: Not qualification

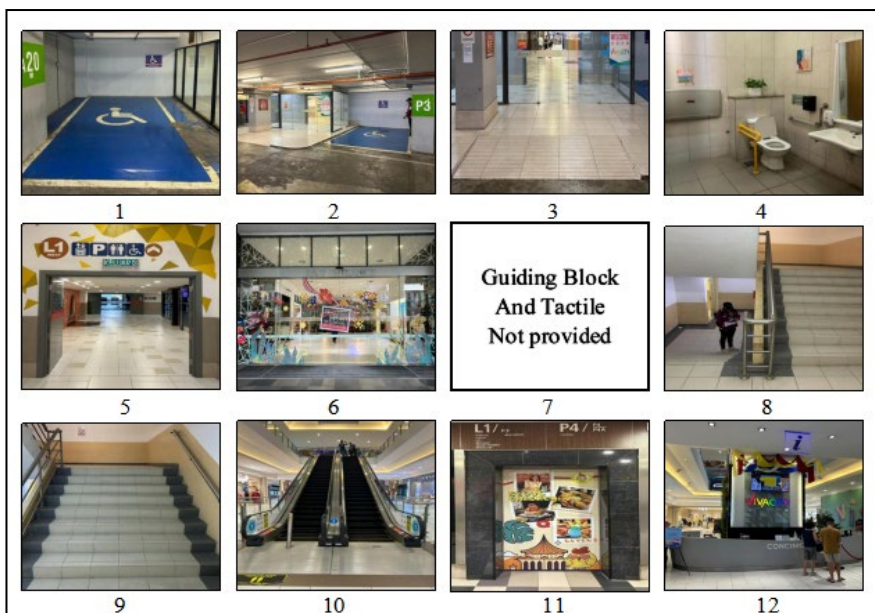


Figure 3 : Facility provided at location

Figure 3 above shows the diagram obtained during the study conducted at the location. Based on the data obtained, Vivacity Megamall management provides incomplete facilities. The management of Vivacity Megamall needs to improve the facilities that are lacking, especially the guiding block and tactile.

4.2 Customer satisfaction with facilities for disabled person

Table 2 below shows 9 questions asked to respondents about their satisfaction with the facilities provided at Vivacity Megamall. Respondents were given the option to mark one level of satisfaction for each question. Among the satisfaction levels asked are very dissatisfied, dissatisfied, neutral, satisfied and very satisfied.

Table 2 : Result Customer Satisfaction with Facilities for Disabled People

No.	Customer Satisfaction with Facilities for Disabled People	1	2	3	4	5
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1	The shopping mall provides clear signage and way finding aids for disabled customers.	0	0	7	19	18
2	The shopping mall has wide and well-maintained pathways to accommodate mobility devices (e.g., wheelchairs).	0	1	5	22	16
3	The shopping mall provides accessible and reliable elevators for vertical transportation.	0	0	4	21	19
4	The shopping mall offers inclusive seating arrangements in common areas and waiting areas.	0	3	4	23	14
5	The shopping mall has accessible and well-maintained restroom facilities for disabled customers.	0	0	6	20	18
6	The shopping mall provides adequate seating or resting areas along pathways for individuals with limited mobility.	0	1	7	20	16
7	The shopping mall offers dedicated assistance services or staff members to support disabled customers' needs.	0	1	8	16	19
8	The shopping mall has properly marked and accessible emergency exits for disabled individuals.	0	1	6	12	25
9	The shopping mall provides accessible seating options within food courts and dining areas.	0	2	5	15	22

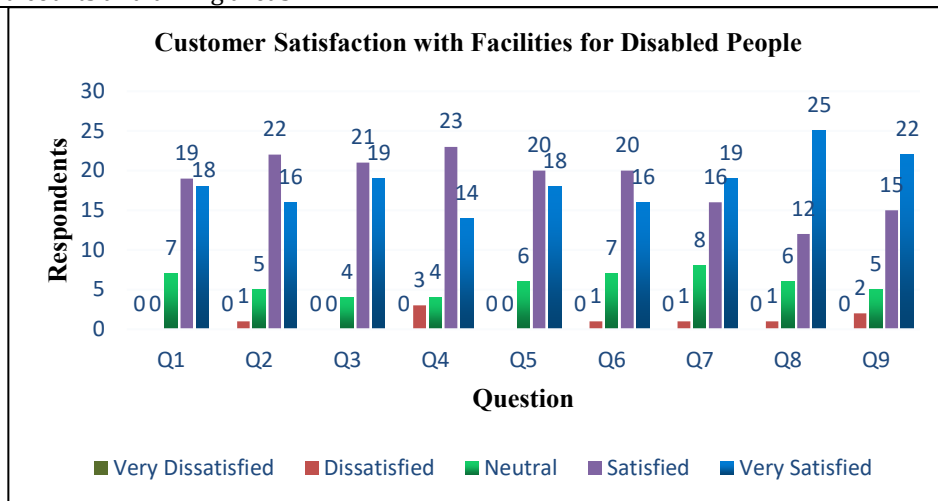


Figure 4 : Data of customer satisfaction with facilities for disabled person

Based on figure 4, there are 9 questions asked to respondents to obtain customer satisfaction data on the facilities provided at Vivacity Megamall. The graph shows a positive result where the majority for the 9 questions the customer is satisfied with the facilities provided. Question 1 to question 6 the majority of them are satisfied and question 7 to question 9 the majority of them are very satisfied. There are some respondents who are not satisfied with the facilities provided. This is because sometimes the seat for full rest and the distance to go to the seat in another section is a bit far. With the data obtained, it can be concluded that the facilities provided are in good condition and need to be improved to ensure that customers feel very satisfied using them.

4.3 Instrument Reliability

Reliability, or trustworthiness, is the consistency of a series of measurements or a series of measuring instruments. According to [11], it can be a measurement from the same measuring tool that will give the same result, or for a more subjective measurement, whether two evaluators give similar scores.

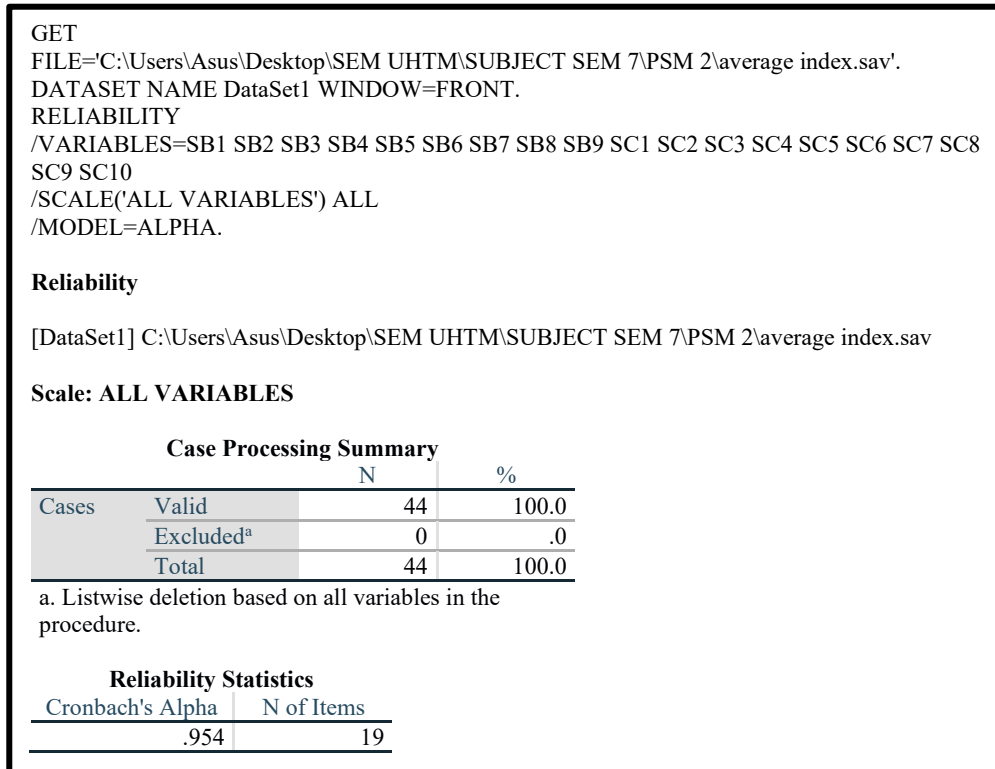


Figure 5 : Results reliability

A total of 44 sets of questionnaires were distributed to Vivacity Megamall visitors PWD in a pilot study conducted. The data obtained was analyzed using SPSS version 26.0. Overall, the Cronbach’s Alpha value obtained from the pilot study conducted was 0.954 and reached a very reliable level of reliability with a high level of consistency.

4.4 Disabled facilities provided in accordance with Malaysian Standard and Uniform Building By-Law

The research methodology used in the study to collect data and information to meet the objectives of the study. In conducting a site visit, analysis and discussion should be done. Examining the data allows for analysis and discussion. As a result, the data is represented. Then, to determine whether the list of facilities for the disabled is sufficient as a Malaysian standard or not. Table 3 below shows part of the checklist used to analyze disabled facilities and Table 4 below shows the results of the data analysis obtained.

Table 3 : Checklist Assessment for disabilities facility. [11]

No	Description	Yes	No	Remark
1	Disabled Parking Spaces			
	• Is the surface of the anti resistance levelled?	/		
	• The parking lots are marked or painted in different colours to set them apart from others.	/		
	• Is there enough room set aside for accessibility?	/		
	• Do dedicated pedestrian lanes exist?	/		
	• Are parking lots located in a convenient area?	/		
2	Walkway	/		Does not provided

3	• Is there sufficient space for movement for persons in wheelchairs?	/	/	pathway with colour that differs from the surrounding area
	• Is the floor level slippery-free?			
	• Provided pathway with colour that differs from the surrounding area.	/		
Ramp				
	• Is the flooring non-slip?	/		
	• Is the width of the ramp sufficient to	/		
Table 4 : Results Checklist Assessment for disabilities facility				
	• Is the specified?			

No.	Assessment for disabilities facility	Description
1	Disabled Parking Spaces	According to the specifications set by the Malaysian Standard.
2	Walkway	Does not provided pathway with colour that differs from the surrounding area, as well as using tiles as a guide for the visually impaired.
3	Ramp	According to the specifications set by the Malaysian Standard.
4	Disabled Toilet	According to the specifications set by the Malaysian Standard.
5	Signage	According to the specifications set by the Malaysian Standard.
6	Doorway and Main Entrance	According to the specifications set by the Malaysian Standard.
7	Guiding Block and Tactile	Not Provided
8	Handrail	The height of the handrail installed does not follow the specifications set by the Malaysian Standard.
9	Staircase	Tactile Braille is not provided at the end of the stairs.
10	Escalator	Braille tactile and fixed handrail are not provided.
11	Elevator	According to the specifications set by the Malaysian Standard.
12	Reception Counter	The height of the counter does not exceed the specifications set by the Malaysian Standard.

4.5 Discussion

All the objectives stated in the first chapter are discussed in this study, and the results are obtained. Obtaining data from Vivacity Megamall that provides or does not provide facilities for PWD to facilitate them use. As stated in objective (a), Vivacity Megamall provides facilities for PWD. Nevertheless, objective (b) of the assessment which is the site visit and checklist contained in MS1184: 2014 found that some facilities for PWD at Vivacity Megamall do not meet the requirements set by the Malaysian Standard (MS 1184: 2014). Most likely it will have an impact on visitors with disabilities, especially blind people. The importance of issues of access and facilities for people with disabilities must be seen as part of the responsibility of building managers, especially shopping centers. For example, mall management should fully complement their design plans with the demands of PWD on access and facilities without waiting for feedback from local authorities to provide a barrier-free environment and infrastructure. People who design for accessibility and convenience must be open to all users, including PWD and

try to improve the environment inside the mall. Finally, objective (c) of the results of the analysis of the respondents from the questionnaire found that the majority were satisfied because the facilities provided at Vivacity Megamall were satisfactory because they provided the necessary facilities for the disabled even if they did not follow the prescribed rules. specifications set by Malaysian Standards. The majority of guidelines that are not followed are tactile braille and for convenience, for example the size on the door of a disabled toilet, indicating that the toilet is not a disabled toilet; the second one is the disabled parking lot, showing that the size used is smaller than the original size, indicating that the area of the parking lot is not enough to comply with the Malaysian Standard guidelines. This research was conducted because it was more innovative and good design seems to be very important for all users.

5. Conclusion

The results of the study based on the First Objective found that of the 12 facilities that need to be provided, there are only 11 facilities provided in the building. Facilities that are not provided are Guiding Block and Tactile. It is a facility for people with vision problems. Next, based on the Objectives of the results of the Second study, it was found that there are some facilities that do not follow the specifications set by MS and UBBL. Among them are walkways, handrails, staircases, escalators and reception counters. The management should be concerned with the specifications set to make it easier for users. If all the facilities are provided in accordance with the specified specifications, it is guaranteed that all disabled users will be very satisfied using them. For the objective of the third study, it was found that the majority of disabled users were satisfied with the facilities provided in the building. Most respondents do not have vision problems and it does not affect them if Guiding Block and Tactile are not provided. Overall, the level of visitor satisfaction with the facilities is satisfactory. In my opinion, in order to get a result for the majority to be very satisfied, the management needs to provide all the facilities that need to be provided and according to the specifications that have been set by MS and UBBL. The lack of facilities and not complying with the specified specifications will have a negative impact on the users. The better the level of facilities provided, the better the response from the respondents or visitors who come. It is hoped that the management will repair and add to the deficiencies encountered to make it easier for users to use it and more importantly, their comfort.

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