#### Satisfaction of Persons with Physical Disabilities at Family-Style Restaurants in Kuala Terengganu

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**Abstract:** For people with disabilities (PWDs) to have the best possible dining experiences in restaurants, they require specialized accessibility. Nevertheless, some restaurant owners sometimes overlook this issue when offering suitable amenities for this particular group of patrons. Therefore, this study aims to identify physical key factors influencing individuals with physical disabilities at family-style restaurants in Kuala Terengganu, Malaysia. The physical key variables in this study include the respective space for parking facilities, the building's design, the design of the dining area, and the family-style restaurant restroom specifications. 400 valid replies were analyzed using the Statistical Package for the Social Sciences (SPSS), and the analysis's findings demonstrate the importance of each suggested variable. The data was gathered in Kuala Terengganu using an online questionnaire and some paper surveys, in compliance with the restriction on physical distances. According to this study, the design of buildings, the design of the dining area, and restroom specifications are the three independent factors that impact customer satisfaction. Future academicians and other interested parties can learn more about the topic of this study. Government agencies and food service providers will also benefit from the insights as they plan and operationalize better in the future to increase consumer satisfaction.

**Keywords:** Persons with physical disabilities, PWD satisfaction, Restaurant facilities, Accessibility, Family-style restaurants

#### **1. Introduction**

This study investigates the opinion of people with disabilities toward restaurant facilities, with a particular focus on people who face physical limitations. The objective is to examine and determine the factors and the satisfaction level of persons with physical disabilities who dine in at the family-style restaurants about the inhouse facilities. The study centers on the availability and arrangement of such service features as parking, entrance, dining areas, restrooms, and overall eating out experience. The objective is to gather their opinions, feelings, and satisfaction levels to explore accommodating and integrating them into the modern restaurant setting. It focuses on how people with disabilities view and react to the quality and accessibility of facilities like parking lots, building entrances, dining spaces, and restrooms. This study intends to uncover key issues and provide insights into solutions for improving accessibility in the food and beverage (F&B) industry by investigating their perceptions and satisfaction levels. It also entails analyzing research-related occurrences to pinpoint certain subjects, study sites, and issues that require solutions. In the food and beverage (F&B) industry, customer satisfaction is pivotal in influencing restaurant sales and reputation (Ahmed et al., 2022). Restaurant amenities are among the many services that contribute to customer happiness. Other than that, researchers also frequently discover that parking, restrooms, dining areas, merchandise, and services at restaurants lead to the happiness of customers who dine in (Castro et al., 2022).

PWDs are defined as those with long-term limitations on their capacity due to physical, sensory, mental, or intellectual problems to fully and effectively participate in society when faced with obstacles (Department of Social Welfare Malaysia, 2023). PWDs, however, are entitled to the same access to all facilities as everyone else (Awang et al., 2021). People with disabilities (PWDs) can now easily share their dining experiences, thanks to social media and online review platforms. The reputation of a restaurant can be greatly enhanced by a single, favorable review that emphasizes inclusivity and accessibility (Aureliano-Silva et al., 2021). High ratings for accessible facilities can also help a restaurant keep its positive reputation and draw in returning customers, particularly loyal PWD customers who appreciate such amenities, as noted by Uslu & Eren (2020).

Reindrawati et al. (2022), as referenced by Perdana (2020), identified two key factors: social awareness and Ghasemi, Oliveira & Kuhzady (2022), "Marketing Mix Analysis for Dote Restaurants in Portugal". International

Case Studies in Tourism Marketing, 218. The quality of physical amenities and infrastructure as measures of accessibility for people with disabilities in Malioboro, Yogyakarta. However, this assessment prioritized physical infrastructure while paying little attention to the actual experiences of individuals with impairments as guests. Similarly, Sawangsuk (2017), cited in Choibamroong and Angkananon (2022), emphasized that tourism management for visitors with physical impairments should include designated services, such as dining and activity areas, tailored to their needs.

Less accessibility in restaurants makes life difficult for those with disabilities (Gillovic & McIntosh, 2020). This issue includes physical barriers that make it difficult for people using wheelchairs to enter or navigate restaurants, such as stairs or narrow entrances (Castro et al., 2022). Bakar et al. (2020), referenced by Mu and Kang (2023), stated that while senior citizens in senior living communities may also desire a dining-in atmosphere, they will place a higher value on stability at the table than on flexibility. This comment demonstrates that older diners want comfort when dining out, which supports the necessity (need) for restaurants to accommodate physically challenged patrons. They too, like any other non-disabled individuals, want to have an enjoyable meal with their family. Persons with Disabilities (PWD) are individuals with physical, mental, or sensory impairments, and accessibility in restaurants plays a critical role in enabling their participation in social dining experiences. Addressing these accessibility issues is essential to ensure inclusivity and equality in dining environments.

To sum up, this study is aimed at finding out the factors affecting people with physical disabilities (PWDs) when they want to eat in a family-style restaurant, focusing especially on the in-house facilities that are available. In addition, this study aimed to measure the satisfaction of PWDs about the existing facilities. Accessibility is a crucial issue for PWDs because the poor infrastructure and no public awareness of the requirements they have create numerous barriers to their dining experiences. Many restaurants are inclined to overlook important facilities such as special parking spaces, building design, dining area design, and restroom specification, which are all very important to PWDs to have everything working properly. Further studying these variables, the research calls out the missing parts in the restaurant access for PWDs and binds the places that will help in improvement. The main goal is not only the research of the factors that have an impact on their choice of dining, but the creation of bearable suggestions for family-style restaurants to be able to serve this underprivileged group in a better way. The discoveries are planned to stimulate restaurant owners and policy makers to bring accessibility to the first place, thus creating an accessible food space that will make PWDs comfortable and satisfied.

# 2. Literature Review

This study examined two basic and specialized knowledge about the restaurant business, patron happiness, and accessible dining options for people with disabilities. Apart from that, it includes the features of the restaurant that increase patron happiness, including the dining space, parking, walkways, restrooms, and payment stations. The accessibility of restaurants for those with physical disabilities is another topic covered in this research, both locally and globally.

**Restaurant Industry:** Globally speaking, there are aspects of restaurant facilities that are well-liked in all nations and civilizations. For patrons to enjoy their dining experience, comfortable seating options are a basic requirement for any restaurant. Restaurants should follow proper cleanliness protocols to protect the health and safety of their customers (Maemunah, 2021). In the food service sector, providing high-quality services that boost client happiness is crucial. Based on staff, resources, and facilities, researchers can provide the service with customer satisfaction (Nguyen et al., 2018). Khan et al. (2013), referenced in Nguyen et al. (2018), stated that seven factors, such as the physical environment, service quality, brand, customer expectations, promotion, price, and food taste, can be used to assess customer happiness. According to Uslu and Eren (2020), a pleasing physical environment consists of components such as remodeled interior design and décor, music, lighting, color scheme, nice aroma, pleasant table arrangement, roomy layout, and appealing service staff.

**Family-Style Restaurants:** Razak et al. (2023) reference the National Restaurant Association (2014) as defining a family-style restaurant as a casual dining space where customers are seated at tables and attended to by wait staff. Customers can dine at a table in a family-style restaurant and take advantage of the relaxed

ambiance while being served by wait staff. However, this is not the situation with fast-food restaurants, where customers place counter orders for meals to go (Razak et al., 2023). Tan (2014) found that around 36% of Malaysian citizens eat at home, whereas 64% of people go out no less than once a day and 12.5% have bought at least one meal out from home, as reported by Rashid et al. (2019) In a report by Rashid et al. (2019), Tan (2014) found that 36% of Malaysian citizens eat at home, whereas 64% of people eat out no less than once a day and 12.5% have bought at least one meal out from home, as reported by Rashid et al. (2019) In a report by Rashid et al. (2019), Tan (2014) found that 36% of Malaysian citizens eat at home, whereas 64% of people eat out no less than once a day and 12.5% have ordered takeout at least once. Razak et al. (2023) cite Othman and Kandasamy (2018) and Rashid et al. (2019) as saying that family-style restaurants are well-liked by Malaysians and offer full-service dining with a selection of food and beverage options. Mamak restaurant is one of the most well-liked options. Apart from that, a coffee shop-style restaurant changed into a family restaurant. There are even more family-owned, independent eateries in this group. They are usually found nearby or conveniently accessible from suburbs and roads. A few serve wine and beer, but most do not offer alcoholic drinks. These are family-friendly, informal restaurants with a simple menu and service (Walker, 2022).

**Persons with Physical Disabilities:** According to Gordon and Tavera-Salyutov (2018), PWDs have historically experienced four main stages: social exclusion and neglect, separation, integration, and complete socio-political inclusion. Despite this, PWDs continue to face challenging circumstances even after ten years. Due to their mobility issues, some disabled people are restricted from interacting with the outside world, which limits their opportunities for social interaction, employment, and other everyday activities (Hwang, 2022). The World Health Organization (2023) estimates that there are 1.3 billion people worldwide, or 16% of the total population, who live with disabilities. These individuals may be impacted by a variety of factors, including age, gender, sexual orientation, religion, race, ethnicity, and financial status. The Department of Social Welfare Malaysia (2023) reports that, as of January 31, 2023, around 637,537 persons had been registered as disabled. The number of disability cases has been rising annually. Malaysians with disabilities are seldom seen in public places because of their limited knowledge about physical activity and other forms of involvement.

**Family-Style Restaurant Facilities for PWDs:** The furnishings, equipment, and physical area needed to run a restaurant are referred to as restaurant facilities. These kinds of facilities are designed to be able to host visitors, facilitate the preparation and serving of meals, and offer a comfortable and useful environment for patrons. PWDs are significant individuals with the same rights as everyone else, but, while having the legal right to do so, they are less able than the general population to participate in social activities regularly (Joo & Cho, 2012). Van Naarden Braun et al. (2006), referenced in Cheng (2020), reported that earlier studies claimed PWDs had the right to have the capacity for adjustment needed to engage in regular social interactions, such as going out to eat or engaging in leisure activities. Malaysia measures and assesses public facilities such as parking lots, paths for pedestrians, bus as well as taxi stops, ramps, guiding blocks, curb cuts, main entrances, entryways, and hallways, corridors and interior pathways, information counters, stairways, lifts, escalators, prayer rooms and ablution areas, general building signage, availability of restrooms according to the 17 public facilities in the evaluated case studies (Bashiti & Asiah, 2016).

**PWD Satisfaction:** Walter et al. (2010), referenced in De Faria et al. (2012), emphasize that both tangible and intangible factors of the dining experience are closely linked to how consumers evaluate a restaurant as a whole. Similarly, Jani and Han (2011), referenced in De Faria et al. (2012), highlight that the quality of service interactions directly affects customer satisfaction in dining establishments. In a study on ethnic restaurants, Jang et al. (2011), referenced in De Faria et al. (2012), identified menu presentation, furnishings, and music as key contributors to generating positive emotions among consumers. Facilities such as accessible restrooms, ramps, parking, dining furniture, and clear signage are tangible elements that directly impact the satisfaction of PWDs. According to Bae et al. (2018), the studies found that as individuals perceived higher quality in restaurant attributes, their satisfaction levels increased, leading to a greater likelihood of returning to the restaurant. Therefore, restaurants need to monitor customer satisfaction by evaluating the perceived quality of key attributes.

**Special Space of Parking Facilities:** Cheng (2020) reports that the majority of visitors were dissatisfied with the parking spaces reserved for those with disabilities at tourist destinations-because the parking lot lacks signage that identifies it is accessible to individuals with disabilities or that removes obstacles. Parking lots can be classified as public spaces since they are situated in open spaces and are utilized by different people, according to Aini et al. (2019). PWDs can also have difficulty accessing parking in Malaysia, and when designing

a parking lot, it is important to consider the many types of disabilities that each person may have (Najhan et al., 2022). Due to the current and traditional Malaysian parking system's design for standard-sized parking lots, limited parking spaces are being wasted (Ata et al., 2019). As mentioned by Ishak et al. (2021), Lee et al. (2017) claimed that customers who wish to dine there may find it challenging to find a parking spot due to the high traffic volume at specific buildings. The traffic level in business centre locations might make it difficult for people, especially those with disabilities, to obtain parking spots. They also said that availability, accessibility, sufficient traffic volume, and visibility are significant factors in restaurant parking sites.

**Design of Building:** Rahate et al. (2022) conducted a study in India and stated that it is crucial to ensure that a staircase's layout is appropriately planned by the circumstances, such as those found in offices, institutions, and businesses. Cheng (2020) suggested that relative restaurant owners might be able to create a space—including pedestrian walks—that meets the standards of a barrier-free environment while still staying within their tight budget. Most buildings in Malaysia include moving walkways and ramps, which could make it simpler for people with impairments to move around the building. However, ramps and moving walkways are usually found mainly in large public spaces (Kamarudin et al., 2014). Berezina et al. (2012) expressed various perspectives, as cited by Zakaria et al. (2019), about the significance of lodging quality and customer satisfaction in influencing a customer's decision to stay in a specific location and foster customer loyalty.

**Design of Dining Area:** Castro et al. (2022) stated that while restaurant facilities in Bulacan have been evaluated favorably for their accessibility, there is still room for improvement if they can make their establishments wheelchair-friendly by providing physically disabled patrons with more space to dine in and move about freely. Aside from that, their research suggested that restaurants should also install sound dampeners since they regulate and lower noise levels in the eating area, facilitating successful communication between people with speech impairments and others (Ghasemi et al., 2022, as quoted in Castro et al., 2022). Dining out in restaurants is something that people with disabilities need or desire to do. Prior research has demonstrated that people with disabilities (PWDs) possess the entitlement to obtain the necessary adapted skills to routinely participate in social activities, such as going out to eat or leisure activities. This right has been recognized as a critical component in the need for communities to enhance their quality of life (Badia et al., 2011; Braun et al., 2006, as cited in Cheng, 2020). However, not every restaurant offers a comfortable dining space for those with disabilities. According to research from Universiti Malaya in Kuala Lumpur, Malaysia, when it comes to the category of barrier-free facilities, the cafeteria earned the lowest mean score (Osman et al., 2015). This finding shows that Malaysians are still partially dissatisfied with barrier-free restaurant facilities.

Restroom Specifications: Disability-friendly washrooms or toilets that are readily available and easily accessible are typically considered one of the reasonable accommodations assessed towards PWDs in New Zealand (D'Souza & Kuntz, 2021). However, even PWDs are not well-informed about their rights or how to take care of their needs for access to sanitation (Daniel et al., 2023). Furthermore, in Thailand, people with physical impairments often find it challenging to use restrooms appropriately and in compliance with their anthropometric restrictions due to poorly built and unwelcoming restrooms (Mamee & Sahachaisaeree, 2010). Every standard restroom should have at least one accessible restroom for the elderly and disabled, according to the ASEAN Public Toilet Standard (The ASEAN Secretariat, 2016). Wider restroom doors and handrails near the restrooms are necessary for wheelchair accessibility. Every restroom facility's entry should include a notice for people with disabilities and a sign particular to each gender that is easily visible in the main corridors. Cheng (2020) did research in Taiwan, and the study participants indicated unhappiness with the slickness of the floor materials and the accessibility of the restaurant facilities. A floor with a slip-resistant surface design would be safer and preferred since some people with disabilities need wheelchairs or crutches to get about. Better accessible restrooms would also make it easier for individuals with disabilities to use the facilities independently and make them feel more comfortable. This issue demonstrates the necessity for safer PWD restrooms without barriers at dining establishments.

# 3. Methodology

**Research Design:** The researchers used a quantitative method for the study. This objective reality needs to be broken down into manageable pieces that make up the research objectives or hypothesis to be understood for the paper. The correlations among the variables in the objectives allow the researchers to generate data or test

hypotheses through a range of data-gathering techniques (Asenahabi, 2019). The researchers employed primary research and an exploratory strategy for this study. Focus groups, interviews, observations, and surveys are more common in primary research. To collect the data, the researchers employed a survey approach. Through surveys, researchers who were less competent in understanding the subject or gathering data were able to learn from specialists or targeted individuals. In this study, the researchers used primary research (exploratory approach) to get insights directly from the target population. In all the other approaches for primary research methods, focus groups, interviews, and observations, the researchers adopted the multiple-choice questionnaire-based survey as the primary means of data collection. This choice facilitated the incorporation of quantitative data from a high sample size of participants but kept an eye on the research goals. The survey was performed by applying the structured questionnaires to collect data on important variables such as perceptions of the quality of physical infrastructures, of which the variables included parking facilities, entrance ways, dining areas, and restrooms. Other than that, respondents were also asked to rate their overall dining experiences based on the quality of in-house facilities to capture their satisfaction levels of the restaurant's facilities.

**The Population and Sample:** 31,759 persons with disabilities live in Terengganu, Malaysia (The Department of Social Welfare Malaysia, 2023). The population included in the sample, assuming intellectual disability was not considered, was around 15,810, and the researchers' focus was on physical disorders related to mobility, oral, visual, auditory, and other areas aside from intelligence. In 2024, the population of individuals with disabilities in Kuala Terengganu, Malaysia, was approximately 15,810. According to the Krejcie and Morgan table, the researchers needed to collect 375 samples from this population. However, they successfully distributed the sample to 400 participants, of whom had disabilities. The sample's requirements were derived from research prioritizing physical disabilities like hearing, vision, and mobility problems. They received the sample by simple random distribution. Both online and offline methods, such as paper questionnaires and Google Forms, were used to conduct the survey. In Kuala Terengganu, the researchers disseminated this questionnaire to officially recognized associations for the disabled, such as Community-Based Rehabilitation (CBR) and Program Pemulihan Komuniti (PDK). Even though the samples were split up into a range of age and gender groups at random, the study was limited to those with physical disabilities. Since some PWDs had trouble completing the questionnaire, the researchers permitted family members or PDK staff to complete the survey on their behalf.

**Instrument Development and Testing:** Several questions were chosen after a careful analysis of the study's goals and pertinent literature. The five SERVQUAL dimensions—tangibles, dependability, certainty, responsiveness, and empathy—were used. In this study, Tangibles (which encompass the physical facilities, equipment, and overall appearance) include elements such as accessible dining areas and restrooms. Reliability, on the other hand, measures the consistency and accuracy of delivering promised services; it ensures that amenities for Persons with Disabilities (PWDs) are always available and functional. Assurance pertains to the knowledge, professionalism, and courtesy exhibited by staff because it fosters trust and confidence among PWD patrons. Responsiveness underlines the willingness to address customer needs promptly, however, this includes accommodating special requests or providing necessary assistance. Lastly, Empathy concentrates on offering personalized care and understanding the unique needs of PWDs, ensuring that they feel valued and included. Although these dimensions are distinct, together they assess how well restaurants cater to accessibility and satisfaction for PWDs. The questionnaire's questions were taken from Cho's (2012) "Study on the Utilization of Restaurant Services by the Disabled and their Demand for Better Access in Korea," which concentrated on this topic. This questionnaire was also created using instructions from Cheng's (2020) study, "The Satisfaction Study of People with Disabilities Regarding the Restaurant with Barrier-Free Environment in Taiwan Tourism Area." Six components made up the questionnaire used in this investigation. The participants' gender, age, degree of education, and forms of disability were among the demographic data collected in the first segment. The evaluation of the participants' experiences with the internal restaurant amenities was the main objective of the following four questionnaire parts. These sections addressed many facets of the on-site amenities, including designated parking areas, building layouts, dining area designs, and restroom specifications. Lastly, client satisfaction was covered in the final portion of the questionnaire. Participants were asked to rate their overall satisfaction with their restaurant dining experience.

Data Collection Procedure: There are more than 9,000 registered disabled people in Kuala Terengganu,

Malaysia. As there is a considerable population of registered disabled people, the city was selected as a research site. Surveys were one of the approaches that the researchers employed in this study's data collection methodology because surveys contain no interviewer bias, are anonymous, and are less expensive. 375 people with physical, visual, and auditory disabilities made up the target respondents. In addition, the researchers identified a Disabled Persons Association in Terengganu as a key site for distributing the survey face-to-face with respondents using the prepared questionnaires. The survey was designed to be accessible in both online and paper formats, which this strategy aimed to maximize participation, particularly because some participants encountered mobility issues. Online surveys were distributed through email and social media platforms. However, paper surveys were handed out at strategic locations that were frequently visited by PWDs, such as the Disabled Persons Association, community centers, and rehabilitation facilities in Kuala Terengganu. Throughout their visits, the researchers engaged in casual conversations with respondents to gather recommendations for additional strategic locations where the survey could be distributed. Through these interactions, the researchers identified other relevant venues, thereby expanding their reach to a broader audience. To improve the survey's accessibility, the researchers collaborated with Malaysia's Department of Social Welfare to ensure that the online survey was available to registered disabled individuals. Participants were provided with a pre-tested, structured series of questions in both formats, and assistance was offered by either the researchers or their legal guardians to help complete the survey.

### 4. Findings and Results

The findings from this section will conclude whether there is a relationship between the special space of parking facilities, design of the building, design of dining area, and restroom specifications toward PWD satisfaction.

**Descriptive Analysis:** Based on a five-point Likert scale, the descriptive analysis provides the means and standard deviations for every item in every category. This section includes respondents' demographics, parking, facility design, dining area, restroom specifications, and overall satisfaction from people with physical limitations.

Variable	Categories	Frequency (N)	Percent (%)
Gender	Male	184	46.0
	Female	216	54.0
Age	15-19 years old		3.5
	20-25 years old	39	9.8
	26-30 years old	68	17.0
	31-35 years old	67	16.8
	36-40 years old	55	13.8
	41-45 years old	48	12.0
	46-50 years old	42	10.5
	51-55 years old	7	1.8
	56-60 years old	42	10.5
	Above 61 years old	18	4.5
Race	Malay	397	99.3
	Chinese	3	0.8
Education	SPM or equivalent	328	82.0
	Diploma	34	8.5
	Undergraduate/Postgraduate Degree	17	4.3
	Master's Degree	21	5.3
Occupation	Government Sector	27	6.8
	Non-government Sector	84	21.0
	Self-employed	162	40.5
	Pensioner	22	5.5
	Student	34	8.5

### Table 1: Analysis of Respondents' Demographics

	Unemployed	71	17.8
What type of disability do	Physical	250	62.5
you have?	Visual	61	15.3
-	Multiple	89	22.3
Frequency of visiting	Once	33	8.3
family-style restaurants	2-3 times	181	45.3
n Kuala Terengganu per	4-5 times	132	33.0
month.	More than 5 times	54	13.5
Select the name of the	Warung Pok Nong (Ikan Celup Tepung -ICT)	12	3.0
estaurant you have	Nasi Dagang Atas Tol	71	17.8
visited in Kuala	Restoran Mat Binjai	4	1.0
Ferengganu.	Restoran Lempeng Rusila	4	1.0
	KBB Burger & Steak Terengganu	7	1.8
	Suerasa Nasi Kerabu	1	0.3
	KD Fried Chicken	53	13.3
	Air Buah Gelas Besar Terengganu	60	15.0
	Kedai Kuih Gong Kapas	9	2.3
	NR Café	32	8.0
	Restoran Plan A	24	6.0
	Mok Ngoh Nasi Dagang	1	0.3
	Singgang Budu	51	12.8
	Kak Pah Nasi Dagang	37	9.3
	Fauzi Nasi Kerabu	7	1.8
	Oliva Café	4	1.0
	Seafood Kuala Ibai Bawah Jambatan	1	0.3
	Star Anise Café	1	0.3
	Gossip Kitchen	2	0.5
	The Syrup VS Soda	1	0.3
	Haji Pok Long ICT	1	0.3
	Nasi Kerabu Warisan Nusantara	4	1.0
	D'Tunggal Seafood	3	0.8
	D'Ganu Cafe Steamboat	4	1.0
	Restoran Asia Signature	6	1.5
/isiting intention	Leisure	398	99.5
U U	Business	2	0.5

Table 2	: Mean Score for Independent Variables (Special Sp	ace for Parking	Facilities)	
No.	Survey Items	Ν	Mean	

No.	Survey Items	Ν	Mean	Std. Deviation
1	Availability of parking spaces for disabled individuals in the restaurant area.	400	2.6875	0.97838
2	Level of safety you feel in the parking lot regarding the space between cars and any potential hazards.	400	2.9425	0.84911
3	Ease of navigating the ramp with a mobility device (e.g., wheelchair, walker, or cane) in restaurant parking.	400	2.6950	0.85076
4	Designated space of parking area including clear signage and proper marking.	400	2.6350	0.87961

Note: 1: Strongly Dissatisfied, 2: Dissatisfied, 3: Neutral, 4: Satisfied, 5: Strongly Satisfied (Likert Scale)

The results showed that respondents were satisfied with the safety of parking facilities, particularly the spacing between vehicles and the mitigation of potential risks, as indicated by the highest mean score of 2.9425. However, there was a neutral response regarding the ease of ramp navigation for mobility devices (mean score of 2.6950) and the adequacy of designated parking spaces, including proper markings and clear signage (mean score of 2.6350).

Table 3: Mean Score for Independent Variable (Design of Building)
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No.	Survey Items	Ν	Mean	Std. Deviation
1	Main entrance's width in terms of accessibility for individuals with	400	3.5275	0.74541
	disabilities.			
2	Clear and easy-to-see signage on the path inside the restaurant.	400	3.2400	0.79937
3	Main entrance slope and guardrail along the path to the restaurant.	400	3.2925	0.81462
4	Floors with non-slip surface design and tactile warning surfaces	400	3.1275	0.73320
	(visually impaired paths).			

Note: 1: Strongly Dissatisfied, 2: Dissatisfied, 3: Neutral, 4: Satisfied, 5: Strongly Satisfied (Likert Scale)

The findings revealed that respondents were generally satisfied with the accessibility at the main entrance for individuals with impairments, as evidenced by the highest mean score of 3.5275. However, there was neutrality identified regarding the tactile warning features, non-slip surface design (mean score of 3.2400), and the readability and visibility of signage along the restaurant's path (mean score of 3.1275).

### Table 4: Mean score for Independent Variable (Design of Dining Area)

No.	Survey Items	Ν	Mean	Std. Deviation
1	Slippery floor material.	400	3.4900	0.63711
2	The width between tables of the dining room.	400	3.5350	0.71418
3	The height of the tables in the dining room.	400	3.5750	0.70043
4	The height of the chairs in the dining room.	400	3.5550	0.67313

Note: 1: Strongly Dissatisfied, 2: Dissatisfied, 3: Neutral, 4: Satisfied, 5: Strongly Satisfied (Likert Scale)

The results indicate a rather general satisfaction with the dining area's design in family-style restaurants. The highest mean score of 3.5750 highlights satisfaction with the height of the tables, while the second-highest mean score of 3.5550 reflects positive feedback on the height of the chairs. Additionally, the mean score of 3.4900 suggests contentment with the smooth flooring in the dining area.

## Table 5: Mean Score for Independent Variable (Restroom Specifications)

Tuble 51 Mean beore for macpendent variable (Restroom specifications)					
No.	Survey Items	Ν	Mean	Std. Deviation	
1	Availability of specific toilets for the disabled with visible toilet signage.	400	2.5425	0.98520	
2	Spacious toilet with wheelchair accessibility.	400	2.8300	0.94516	
3	Installed and reachable handrail.	400	2.4100	0.94823	
4	Adequate height of washbasin.	400	2.9900	0.81027	

Note: 1: Strongly Dissatisfied, 2: Dissatisfied, 3: Neutral, 4: Satisfied, 5: Strongly Satisfied (Likert Scale)

The results highlight mixed perspectives on restroom facilities in family-style restaurants. While the highest mean score of 2.9900 reflects some satisfaction with the proper height of the washbasin, the second-highest mean of 2.8300 indicates neutrality towards the spaciousness and wheelchair accessibility of the toilets. However, lower mean scores for installed railings (2.4100) and designated toilets for disabled people with clear signage (2.5425) reveal dissatisfaction with key accessibility features.

### Table 6: Mean score for Dependent Variable (Persons with Physical Disabilities Satisfaction)

No.	Survey Items	Ν	Mean	Std. Deviation
1	How satisfied are you with the facilities provided specifically for	400	2.8700	0.76128
	guests with disabilities at the restaurant?			
2	Overall, are the facilities provided for people with disabilities in	400	3.0675	0.74789
	restaurants at Terengganu safe and user-friendly?			
3	Overall, how satisfied are you with your dining experience at the	400	3.3825	0.78277
	restaurant?			

Note: 1: Strongly Dissatisfied, 2: Dissatisfied, 3: Neutral, 4: Satisfied, 5: Strongly Satisfied (Likert Scale)

The results indicated that respondents had a neutral overall satisfaction with their dining experience in familystyle restaurants, as reflected by the highest mean score of 3.3825. The second-highest score of 3.0675 suggests uncertainty regarding the safety and usability of facilities for people with disabilities. The lowest mean score of 2.8700 highlights neutral opinions about the amenities provided for customers with disabilities.

**Correlation Analysis**: The linear association between the independent and dependent variables was examined using the Pearson Correlation Coefficient. Both positive and negative impacts are feasible for this linear relationship.

# Table 8: Pearson Correlation Matrix between Variables

		Special Space of Parking Facilities	Design of Building	Design of Dining Area	Restroom Specifications
Persons With Physical	Pearson Correlation	0.427**	0.427**	0.338**	0.619**
Disabilities Satisfaction	Sig. (2-tailed)	<0.001	< 0.001	<0.001	<0.001
(DV)	Ν	400	400	400	400

The findings indicated that the facilities of family-style restaurants significantly influence the dining satisfaction of individuals with physical disabilities. Pearson correlation analysis revealed a moderate positive relationship between parking facilities, building design, and customer satisfaction (r = 0.427, p < 0.05). A weak positive relationship was found between dining area design and satisfaction (r = 0.338, p < 0.05). Restroom specifications showed the strongest positive correlation with satisfaction (r = 0.619, p < 0.05). These results support the study's hypotheses, confirming that the in-house facilities significantly impact the satisfaction levels of persons with physical disabilities dining in family-style restaurants, as shown in Table 11.

**Regression Analysis:** A regression analysis was performed to assess the connection between accessibility features such as parking facilities, building design, dining area design, and restroom design and the overall satisfaction of persons with disabilities (PWDs).

Table 9	ANOVAa
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	Sum of Squares	df	Mean Square	F	Sig.
Regression	80.704	4	20.176	92.110	<0.001b
Residual	86.522	395	0.219		
Total	167.227	399			

a. Dependent Variable: Persons with Physical Disabilities Satisfaction

b. Predictors: (Constant): Special Space of Parking Facilities, Design of Building, Design of Dining Area, Restroom Specifications

### Table 10: Coefficients<sup>a</sup>

	Unstandardized Coefficients		Standardized Coefficients Beta	t	Sig.
	В	Std. Error	Coefficients Beta		
(Constant)	0.405	0.176		2.302	0.022
Special Space of	0.072	0.044	0.079	1.626	0.105
Parking Facilities					
Design of Building	0.105	0.050	0.097	2.118	0.035
Design of Dining Area	0.287	0.046	0.259	6.302	<0.001
Restroom Specifications	0.424	0.038	0.516	11.224	<0.001

Dependent Variable: Persons with Physical Disabilities

The coefficients revealed that design of Building (B = 0.105,  $\beta$  = 0.097, t =2.118, p <0.035), design of dining area (B = 0.287,  $\beta$  =0.259, t = 6.302, p <0.001) and restroom specifications (B = 0.424,  $\beta$  = 0.516, t = 11.224, p <0.001) were significant predictors of satisfaction. However, parking facilities (B = 0.072,  $\beta$  = 0.079, t = 1.626, p >0.105) were not statistically significant. These findings emphasize the significance of particular accessibility features in enhancing the dining experiences of persons with disabilities (PWDs). These results support the study's hypotheses, confirming that the satisfaction level of persons with physical disabilities who dine in at family-style restaurants is significantly influenced by the in-house facilities, as shown in Table 11.

## Table 11: Hypothesis and Decision

Hypothesis	Decision
H <sub>1</sub> : There is a significant relationship between factors that influence dining in at restaurants and persons with physical disabilities' satisfaction in restaurants.	Accepted
H <sub>2</sub> : The satisfaction level of persons with physical disabilities who dine in at family- style restaurants is significantly influenced by the in-house facilities.	Accepted

# Discussion

The findings highlight the importance of accessible and inclusive facilities in family-style restaurants for persons with disabilities (PWDs), examining key aspects such as parking, dining spaces, and restroom facilities. Respondents expressed general satisfaction with parking safety, aligning with Castro et al. (2022), who noted that adherence to basic parking criteria often meets PWD expectations. While respondents were generally satisfied with parking safety, concerns about ramp accessibility, layout, and design emerged as potential improvement areas. Dining areas received favorable feedback, with many facilities adhering to PWD norms, consistent with Bakar et al. (2020), who highlighted the importance of stable and comfortable dining arrangements for patrons with physical limitations. However, mixed feelings about elements like signage, railings, and floor surfaces suggested scope for refinement. Restroom facilities presented the most dissatisfaction, with issues related to washbasin height, toilet space, accessible railings and signage needing urgent attention. The study's correlation analysis found positive but varying relationships between customer satisfaction and different facility categories, with restroom facilities showing the strongest link. It also revealed gaps in PWDs' awareness of their rights and available resources, underscoring the need for targeted education and stakeholder collaboration to improve accessibility standards. Practical recommendations include enhancing educational signage, expanding accessible features, and focusing on guardrails, entrance slopes, and restroom amenities.

# **5. Conclusion and Recommendations**

This study offers a comprehensive picture of the satisfaction levels of individuals with disabilities in familystyle restaurants in answer to the primary research question. Positive aspects like satisfaction with parking safety and friendly restaurants are counterbalanced by barriers like ramp accessibility, pathway compatibility, and the necessity for restrooms. The variance in overall satisfaction amongst institutions for those with physical limitations underscores the complexity of customer expectations about the dining experience. Descriptive, correlation, and regression analysis were used in a comprehensive review as part of the study approach, along with limited identification in the literature base and approval for data collection. Future work proposals include taking the study abroad or to other locations and conducting a more thorough examination of certain factors affecting satisfaction. This study advances knowledge in the field by providing quantitative insights into the relationships between various facilities and customer satisfaction. Although limited by challenges such as small sample sizes, lack of prior research, and data collection hurdles, the study provides a foundation for further exploration. Future research should consider expanding geographically, incorporating diverse research methodologies, and addressing cultural differences to deepen understanding and improve accessibility in dining environments. By prioritizing these insights, restaurants can better meet PWDs' expectations, fostering a more inclusive dining experience. Nevertheless, despite these drawbacks, the study offers practitioners, decision-makers, and researchers insightful information. Ultimately, the study highlights the continuous need to increase accessibility and satisfaction and provides a foundational tool for understanding and enhancing the family-style restaurant dining experience for people with impairments.

#### References

- Ahmed, S., Asheq, A. A., Ahmed, E., Chowdhury, U. Y., Sufi, T., & Mostafa, M. G. (2022). The intricate relationships of consumers' loyalty and their perceptions of service quality, price and satisfaction in restaurant service. *The TQM Journal*, *35*(2), 519–539. https://doi.org/10.1108/tqm-06-2021-0158
- Aini, Q., Marlina, H., & Nikmatullah, A. (2019). Evaluation of Accessibility for People with Disability in Public Open Space. *IOP Conference Series: Materials Science and Engineering*, 506, 012018. https://doi.org/10.1088/1757-899x/506/1/012018
- Asenahabi, B. M. (2019). Basics of Research Design: A Guide to selecting appropriate research design. *International Journal of Contemporary Applied Researches*, 6(5), 76–89.
- Ata, K. M., Soh, A. C., Ishak, A., Jaafar, H. I., & Khairuddin, N. A. (2019). Smart Indoor Parking System Based on Dijkstra's Algorithm. *International Journal of Electrical Engineering and Applied Sciences (IJEEAS)*, 2(1), 13–20. https://core.ac.uk/download/pdf/229280683.pdf
- Aureliano-Silva, L., Xi, L., & Spers, E. E. (2021). The effect of online reviews on restaurant visit intentions: applying signalling and involvement theories. *Journal of Hospitality and Tourism Technology*, *12*(4), 672–688. https://doi.org/10.1108/jhtt-06-2020-0143
- Awang, N. A., Chua, S. J. L., Ali, A. S., Au-Yong, C. P., Naicker, A. S., & Yuliawiratman, B. S. (2021). Persons with disability perception of facilities management service quality: hospital buildings in Malaysia. *International Journal of Health Care Quality Assurance*, 34(3/4), 125–139.
- Badia, M., Orgaz, B. M., Verdugo, M. A., Ullán, A. M., & Martinez, M. M. (2011). Personal factors and perceived barriers to participation in leisure activities for young and adults with developmental disabilities. *Research in Developmental Disabilities*, *32*(6), 2055 -2063. https://doi.org/10.1016/j.ridd.2011.08.007
- Bae, S., Slevitch, L., & Tomas, S. (2018). The effects of restaurant attributes on satisfaction and return patronage intentions: Evidence from solo diners' experiences in the United States. *Cogent Business & Management*, 5(1), 1–16. https://doi.org/10.1080/23311975.2018.1493903
- Bakar, A. Z. A., Ganesan, L., Othman, M., Haron, S. A., and Ishak, F. A. C. (2020). Where to eat: exploring silver consumer restaurant dining choice in Malaysia. JSSH 28, 3297–3317. doi: 10.47836/pjssh.28.4.44
- Bashiti, A., & Asiah Abdul Rahim. (2016). Physical Barriers Faced by People with Disabilities (PwDs) in Shopping Malls. Procedia - Social and Behavioral Sciences, 222, 414-422. https://doi.org/10.1016/j.sbspro.2016.05.199
- Berezina, K., Cobanoglu, C., Miller, B. L., &Kwansa, F. A. (2012). The impact of information security breach on hotel guest perception of service quality, satisfaction, revisit intentions and word-of-mouth. International Journal of Contemporary Hospitality Management, 24(7), 991–1010. https://doi.org/10.1108/09596111211258883
- Castro, C. F. T., Gay, D. L., Joaquin, M. L. A., Landicho, J. M., Lazaro, K. M., Sorrosa, V. M. V., & Villanueva, F. C. C. (2022). Accessible Tourism Experience in Restaurants: The Case of Persons with Disabilities Residing in Bulacan. *Cosmos An International Journal of Art & Higher Education*, 11(1), 53–71. http://doi.org/10.46360/cosmos.ahe.520221007
- Cheng, C.-H. (2020). The Satisfaction Study of People with Disabilities Regarding the Restaurant with Barrier-Free Environment in Taiwan Tourism Area. *International Business Research*, *13*(4), 1–13. https://doi.org/10.5539/ibr.v13n4p1
- Choibamroong, T., & Angkananon, K. (2022). Accessibility Barriers in the Second-Tier Tourism Cities of Thailand for People with Visual Impairments. *GeoJournal of Tourism and Geosites*, *45*(4, Suppl.), 1683– 1692. https://doi.org/10.30892/gtg.454spl18-989
- De Faria, M. D., Da Silva, J. F., & Ferreira, J. B. (2012). The visually impaired and consumption in restaurants. International Journal of Contemporary Hospitality Management, 24(5), 721–734. https://doi.org/10.1108/09596111211237264
- Daniel, D., Nastiti, A., Surbakti, H. Y., & Dwipayanti, N. M. (2023). Access to inclusive sanitation and participation in sanitation programs for people with disabilities in Indonesia. *Scientific Reports*, *13*(4310), 1–12. https://doi.org/10.1038/s41598-023-30586-z
- Department of Social Welfare Malaysia. (2023). https://www.jkm.gov.my/jkm/index.php?r=portal/index
- D'Souza, O. N., & Kuntz, J. R. C. (2021). Examining the impact of reasonable accommodation appraisals on New Zealand managers' attitudes toward hiring people with disability. *Equality, Diversity and Inclusion: An International Journal*, 42(6), 754–771. https://doi.org/10.1108/edi-08-2021-0207
- Ghasemi, V., Oliveira, M.G. & Kuhzady, S., (2022). "Marketing Mix Analysis for Dote Restaurants in Portugal".

International Case Studies in Tourism Marketing, 218.

- Gillovic, B., & McIntosh, A. (2020). Accessibility and Inclusive Tourism Development: Current State and Future Agenda. *Sustainability*, *12*(22), 9722. https://doi.org/10.3390/su12229722
- Gordon, J.-S., & Tavera-Salyutov, F. (2018). Remarks on disability rights legislation. *Equality, Diversity and Inclusion: An International Journal*, *37*(5), 506–526. https://doi.org/10.1108/edi-12-2016-0114
- Hwang, J. (2022). A factor analysis for identifying people with disabilities' mobility issues in built environments. *Transportation Research Part F: Traffic Psychology and Behavior, 88*, 122–131. https://doi.org/10.1016/j.trf.2022.05.016
- Ishak, F. A. C., Mazlan, N., Lokman, N. A., Karim, M. S. A., & Mohamad, S. F. (2021). Exploring the Issues and Challenges in Managing Themed Restaurants in Klang Valley, Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 11(10), 1121–1135. http://dx.doi.org/10.6007/IJARBSS/v11-i10/11490
- Jani, D. and Han, H. (2011). Investigating the key factors affecting behavioral intentions: Evidence from a fullservice restaurant setting. *International Journal of Contemporary Hospitality Management*, 23(7), 100-18.
- Joo, N., & Cho, K. (2012). Study on the Utilization of Restaurant Services by the Disabled and their Demand for Better Access in Korea. *Asia Pacific Journal of Tourism Research*, 17(3), 338–353. https://doi.org/10.1080/10941665.2011.628327
- Kamarudin, H., Ariff, N. R. M., Ismail, W. Z. W., Bakri, A. F., & Ithnin, Z. (2014). Malaysian Scenario on Access and Facilities for Persons with Disabilities: A literature review. *MATEC Web of Conferences*, 15, 1–7. https://doi.org/10.1051/matecconf/20141501019
- Khan, S., Hussain, S. and Yaqoob, F. (2013). Determinants of customer satisfaction in fast food industry a study of fast-food restaurants Peshawar Pakistan. Studia commercialia Bratislavensia, 6(21), 56-65.
- Maemunah, I. (2021). Implementation of Cleanliness, Health and Environmental Sustainability Guidelines in Restaurants around the Southern Java Crossing Route in Ciamis Regency. *Budapest International Research and Critics Institute-Journal (BIRCI-Journal), 4*(2), 2635–2642. https://doi.org/10.33258/birci.v4i2.1970
- Mamee, W., & Sahachaisaeree, N. (2010). Public toilet design criteria for users with walking disability in conjunction with universal design paradigm. *Procedia - Social and Behavioral Sciences*, 5, 1246–1250. https://doi.org/10.1016/j.sbspro.2010.07.269
- Mu, J., & Kang, J. (2023). Dining comfort in elderly care facility dining rooms and influencing factors before and after the outbreak of the COVID-19 pandemic. *Frontiers in Psychology*, 14. https://doi.org/10.3389/fpsyg.2023.1106741
- Nguyen, Q., Nisar, T. M., Knox, D., & Prabhakar, G. P. (2018). Understanding customer satisfaction in the UK quick service restaurant industry: The influence of the tangible attributes of perceived service quality. *British Food Journal*, *120*(6), 1207–1222. https://doi.org/10.1108/bfj-08-2017-0449
- Najhan, N. F. S. M., Shahril, A. M., Chik, C. T., & Abdullah, F. C. (2022). The relationship between restaurant atmosphere and customer satisfaction: Malaysian restaurant contexts. *Advances in Business Research International Journal*, 8(1), 46-59.
- Osman, M. M., Radzi, F. H. M., Bakri, N. I. M., & Ibrahim, M. (2015). Barrier-Free Campus: University Malaya, Kuala Lumpur. *Procedia - Social and Behavioral Sciences, 168,* 134–144.
- Perdana, F. R. (2020). Aksebilitas Difabel Pada Objek Wisata Malioboro. *JPI (Jurnal Pendidikan Inklusi)*, 4(1), 66–84. https://doi.org/10.26740/inklusi.v4n1.p66-84
- Piramanayagam, S., Pratim, P., & More, B. (2019). Inclusive hotel design in India : A User Perspective. *Journal of Accessibility and Design for All*, 9(1), 41–65. https://doi.org/10.17411/jacces.v9i1.185
- Rahate, P., Gujwar, N., Khorgade, M., Moundekar, V., Gupta, Y., & Mirza, A. (2022). Design and Development of Staircase Ramp for Disabled Person. *International Journal of Multidisciplinary Research in Science, Engineering* and *Technology* (*IJMRSET*), 5(6), 1067–1071. https://doi.org/10.15680/IJMRSET.2022.0506010
- Rashid, M. H. A., Hamzah, M. I., Shobri, N. D. M., & Hashin, N. (2019). A Review on Full-Service Restaurants in Malaysia. *International Tourism and Hospitality Journal*, *2*(1), 1–6.
- Razak, A., Sabri, A., & Mohammad, T. (2023). The Restaurateurs' Perspective on The Impact of Social Media Advertisements on Family Restaurants in Dungun, Terengganu. *International Journal of Business and Technology Management*, 5(S1), 292–304. https://doi.org/10.55057/ijbtm.2023.5.S1.28
- Reindrawati, D.Y., Noviyanti, U.D.E., & Young, T. (2022). Tourism Experiences of People with Disabilities: Voices

from Indonesia. *Sustainability*, 14, 1–21.\_https://doi.org/10.3390/su142013310

- Safri, S. N. W., & Mohi, Z. (2022). The Quality of Kopitiam Physical Environment: Are Patrons Satisfied? *Journal of Tourism, Hospitality & Culinary Arts (JTHCA), 14*(3), 1–22. https://ir.uitm.edu.my/id/eprint/72334/1/72334.pdf
- Sawangsuk, N. (2017). Cultural Tourism Management for groups of people with disabilities. International Thai Tourism Journal, 13(1), 57-82
- The ASEAN Secretariat. (2016, January). *ASEAN Public Toilet Standard* (338.4791). Association of Southeast Asian Nations (ASEAN). https://www.asean.org/wp-content/uploads/2012/05/ASEAN-Public-Toilet-Standard.pdf
- Uslu, A., & Eren, R. (2020). Critical Review of Service Quality Scales with a Focus on Customer Satisfaction and Loyalty in Restaurants. *DETUROPE – The Central European Journal of Regional Development and Tourism*, 12(1), 64–84. https://doi.org/10.32725/det.2020.004
- Van Naarden Braun, K., Yeargin-Allsopp, M., & Lollar, D. (2006). Factors associated with leisure activity among young adults with developmental disabilities. Research in Developmental Disabilities, 27, 567-583. https://doi.org/10.1016/j.ridd.2005.05.008
- Walker, J. R. (2022). The Restaurant: From Concept to Operation (Ninth ed.). John Wiley & Sons.
- Walter, U., Edverdson, B. and Ostromos, A. (2010). Drivers of customers' service experiences: a study in the restaurant industry. *Managing Service Quality*, 20(3), 236-58.
- World Health Organization (2023, March 7). *Disability*. https://www.who.int/news-room/fact-sheets/detail/disability-and-health
- Zakaria, H., Kamarudin, D., & Manan, W. K. A. W. A. (2019). Service Quality, Satisfaction, and Customer Loyalty in Peer-to-Peer Lodging in Malaysia. *TEST Engineering and Management*, *81*, 812–818. <u>https://www.researchgate.net/publication/352438327</u>