Perspectives from Elderly and Persons with Reduced Mobility: Towards a More Inclusive Fare-Free Transport Service in Quezon City, Philippines

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Abstract: The growing population of elderly and persons with reduced mobility (PRMs) in the Philippines requires providing safe, accessible, reliable, and inclusive transportation to cater to their travel needs and connect them with society, economic opportunities, and basic services, especially healthcare facilities. The study aimed to understand their experiences and satisfaction with the fare-free bus service in Quezon City, through surveys and validated through semi-structured interviews. The survey revealed high satisfaction with the service, particularly in security, comfort, and availability. The interviews, which focused on their experiences, found that despite the positive experiences and high satisfaction rates, there are still areas for improvement with bus units, waiting areas/bus stops, information, service management, and predictability of the bus schedule. By gaining insights into user experiences and satisfaction levels, especially of the elderly and PRMs, the study can inform infrastructure development and investments that are more responsive to the needs of all.

Keywords: Satisfaction, Fare-Free Bus service, Inclusive transportation, Passengers with Reduced Mobility, Sustainable Development Goal 11

1. INTRODUCTION

1.1 Background

Elderly (aged 60 and above) and persons with reduced mobility (PRMs) are among the vulnerable groups that need the utmost attention from the government. In the Philippines, according to the 2020 Census of Population and Housing conducted by the Philippine Statistics Authority (PSA), the elderly constitute 8.48% of the total population. Of the 97.60 million household population five years old and over, nearly nine in every 100 individuals (8.7%) had at least one form of functional difficulty: seeing, hearing, walking or climbing stairs, remembering or concentrating, self-caring, or communicating.

Future projections suggest that the country will transition to an aging society by 2030. It is highlighted in the second report of the Longitudinal Study of Aging and Health in the Philippines project, which examined the health status and well-being of older Filipinos, the factors that influence these outcomes, as well as the changes in their health status over time. The conclusion was drawn from a follow-up survey conducted from January to April 2023 (Wave 2), four years after the initial survey (Wave 1), which took place from December 2018 to March 2019.

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As the population of elderly and PRMs continues to rise (Abrigo et al., 2021; PSA, 2021; PSA 2024), coupled with the rapid pace of urbanization across the country (Obanan, 2021), facilitating connectivity to essential services—such as healthcare, work, education, and social engagement—becomes increasingly important.

Reliable and accessible transportation is crucial not only for their independence but also for their ability to fully participate in society (Mwaka et al., 2023; Best et al., (2022); Park & Chowdhury, 2022; Latiff & Mohd, 2023). It includes not only ensuring physical accessibility, such as bus design, ramps, and seating arrangements, but also addressing broader issues like ease of navigation, waiting times, and overall comfort. Inadequate transportation options can lead to isolation, decreased quality of life, and limited access to basic needs (Sajib, 2021; Jahangir et al., 2024; BergJonas & Ihlström, 2019).

The Quezon City Bus Augmentation Program or Q City Bus, is an initiative toward inclusivity, providing free rides to commuters since 2020, and has continued to operate even after the COVID-19 pandemic. While the service is offered for free, it is still important to identify and address the needs of its users, especially those in vulnerable groups, such as the elderly and PRMs.

1.2 Study Objectives

This study seeks to explore the satisfaction and experiences of elderly and PRMs using the Q City Bus service. To achieve this, the study focused on the following specific objectives:

- 1. Understand how the elderly and PRMs utilize the Q City Bus, including their frequency of use and trip purpose.
- 2. Assess the satisfaction of the elderly and PRM passengers with the Q City Bus.
- 3. Examine both positive and negative experiences of the elderly and PRMs with the Q City Bus service.
- 4. Identify areas for improvement to accommodate the needs of elderly and PRM passengers of the Q City Bus.

2. LITERATURE REVIEW

2.1 Transport Needs and Satisfaction of Persons with Reduced Mobility

Persons with reduced mobility (PRMs) include individuals who have limited mobility due to any physical disabilities, intellectual impairments, age-related issues, or any other diseases or health conditions that require appropriate attention or service to meet their specific needs. PRMs commute less and engage in fewer activities than those without mobility disabilities, largely because their transport choices are limited by specific needs (Shumway-Cook, Patla, Stewart, Ferrucci, Ciol, and Guralnik, 2002; Pocuc et al., 2021; Neven & Ectors, 2023).

For trips to be considered dignified for PRMs, public transport must be accessible, inclusive, and equitable, and it must promote independence and enhance self-worth (Chapman, Ehrlich, O'Loghlen, & Kendall, 2024). Among the factors that contribute to a dignified mobility experience, acknowledgement appears to be the most important, as PRMs strongly express the desire to be acknowledged as persons when using public transport systems. In relation to acknowledgement, social barriers, particularly negative attitudes and behaviors towards PRMs, remain the most significant obstacle to dignity (Chapman et al., 2024).

Other social barriers include a lack of public awareness about and respect for PRMs, fear of fainting or falling, and additional costs for wheelchair space or travel assistants (Duri & Luke, 2022; Neven & Ectors, 2023; Lee et al., 2024; Mwaka et al., 2024).

Social barriers make public transportation undesirable for PRMs due to social stigma, as well as the high cost of travel. Studies show that drivers and non-PRM passengers often exhibit negative attitudes toward PRMs, which causes them to develop a negative perception of public transport, leading to higher levels of feelings of unsafety and dissatisfaction when using these services (Mogaji & Nguyen, 2021; Duri & Luke, 2022; Ramli et al., 2023; Lee et al., 2024; Sani et al., 2025). Discrimination can undermine their confidence in accessing and using public transportation, resulting in decreased satisfaction and increased fear of using public transport (Mwaka et al., 2024). As a result, they tend to prefer more expensive travel options to avoid the negative experiences associated with these systems (Mogaji & Nguyen, 2021; Duri & Luke, 2022; Neven & Ectors, 2023; Ramli et al., 2023; Lee et al., 2024; Mwaka et al., 2024).

To help PRMs feel more confident and capable in using public transport, the following factors need to be considered: accessibility, safety, comfort, information, speed, time, cost, and reliability of service (Pocuc et al., 2021; Duri & Luke, 2022; Neven & Ectors, 2023; Lee et al., 2024; Mwaka et al., 2024).

The accessibility needs for public transport that PRMs require include lifts or ramps for wheelchair users, accessible information and communication, on-board announcements about stops and transfers, assistance with boarding and alighting, and other features that ensure ease of use for them (Neven & Ectors, 2023; Sogbe et al., 2024). Inaccessible public transport often leads them to choose other modes of transport instead (Mun et al., 2019; Lee et al., 2024). The study by Ramli et al. (2023) found that PRMs have a negative perception of accessibility in public transport, largely due to physical barriers that make it difficult for them to travel safely and comfortably.

Safety is another major concern, not only due to social stigma and discrimination, but also because of inadequate transport infrastructure that may pose risks, such as uneven pathways, absence of pedestrian signage and traffic light, poor lighting, and other safety issues (Duri & Luke, 2022; Gaspay et al., 2024; Mwaka et al., 2024; Sani et al., 2025). Women with reduced mobility, in particular, face heightened insecurity when using public transport, including a lack of privacy, overcrowded seating arrangements, harassment from staff and passengers, and other issues, making commuting alone unsafe (Duri & Luke, 2022; Sogbe et al., 2024; Sani, et al., 2025).

PRMs seek a comfortable public transport experience, not only in terms of physical comfort but also physiological and social comfort. They often feel frustrated when drivers and other passengers are inconsiderate of their mobility needs (Mogaji & Nguyen, 2021). Many also found commuting stressful due to unpleasant interactions, leading to low satisfaction with public transportation and feelings of discomfort and insecurity (Cochran, 2020). PRMs would rather travel longer distances and pay more to avoid certain routes and public transport vehicles Mogaji and Nguyen (2021) and Ramli et al. (2023), preferring services where they feel safer, more comfortable, and treated with dignity and respect (Cochran, 2020). PRMs also go above and beyond by pre-planning their trips to manage anxiety, maintain control over their trip, and navigate social interactions with dignity (Chapman et al., 2024).

Shumway-Cook et al. (2002) found that PRMs face difficulties traveling alone and are frequently accompanied by a companion for the entire trip. Only a few of them can travel independently, either by driving themselves or using public transportation, particularly modes with services designed for PRMs. Further, older adults with mobility disabilities perceived their trips as more tiring than those without disabilities and reported lower levels of trip satisfaction (Shumway-Cook et al., 2002).

While PRMs often require assistance when commuting, they also feel 'ashamed' of their situation (Cochran, 2020; Mogaji & Nguyen, 2021; Gaspay et al., 2024). Older PRMs were more reluctant to ask for or accept assistance, finding it intimidating, which contributed to lower self-efficacy and reduced motivation to travel (Cochran, 2020). In contrast, PRMs who felt more at ease accepting assistance developed higher self-efficacy, commuted more frequently and expressed greater satisfaction with their travel experiences (Cochran, 2020).

Information is crucial for PRMs to plan their trips in advance, which improves their confidence in using the system and increases their likelihood of accessing and using public transport (Duri & Luke, 2022; Gaspay et al., 2024; Lee et al., 2024). Mun et al. (2019) suggest that the availability of information about the service influences the accessibility of public transport for PRMs. Public transport services must be standardized, including payment methods, fixed routes and schedules, boarding and alighting procedures, and rules of use of service, to enhance service knowledge and reliability of public transport (Lee et al., 2024). The reliability, predictability, and familiarity of public transport services are crucial in reducing the fear and anxiety associated with using public transport (Mogaji & Nguyen, 2021).

Implementing a more affordable mode of transportation through cost subsidies, for example, should be considered to encourage the use of public transport services for this sector (Duri & Luke, 2022; Lee et al., 2024; Mwaka et al., 2024). In the Philippines, the government provides a 20% discount to senior citizens (Republic Act No. 9994) and persons with disabilities (PWDs) (Republic Act No. 10754) for land-based transportation fares. However, this has recently been under public scrutiny due to the proliferation of fake PWD IDs (Arceo, 2024). A study by Gaspay et al. (2024) found that PRMs tend to spend more money than average to reach transport terminals or hubs due to their inaccessibility.

Although steps are being taken at the institutional level to make public transport more accessible for PRMs, barriers persist, and their needs are often overlooked, limiting their mobility. Currently, many transport stakeholders are unwilling to support or participate in these discussions, and PRMs are excluded from policymaking and the design of public transport systems, which is essential for ensuring that public transport meets their mobility needs (Duri & Luke, 2022; Mwaka et al., 2024).

2.2 Transport Needs and Satisfaction of the Elderly

Transportation mobility is one of the contributors for the life satisfaction of the aging population because it promotes independence, good health, quality of life, well-being, and social integration among them (Banister & Bowling, 2004; Kim & Ulfarsson, 2004; Latiff & Mohd, 2023). According to the literature, there are three ways in which mobility can influence the well-being of older adults: 1) it allows them to get to their destinations and social connections, thereby, improving their mental health and overall well-being; 2) it promotes good physical health; and finally, 3) it enhances the feeling of well-being (Nordabkke & Schanen, 2013; Latiff & Mohd, 2023).

Fare-free public transport services promote social participation by allowing the senior population to connect with their community, which helps alleviate social isolation, improve mental health, and enhance overall well-being (Mah & Mitra, 2017; Rambaldini-Gooding, 2021). Fare-free public transport services also provide health benefits for the senior population by promoting a more active lifestyle. This includes visiting family and friends, going to the gym, exercising with the local community, and running errands, improving their quality of life (Mah & Mitra, 2017; Myung-Jin et al., 2018). These activities reduce the likelihood of developing chronic health conditions (Mah & Mitra, 2017; Rambaldini-Gooding, 2021) and lead to increased leisure time, and reduced depression and suicide (Mah & Mitra, 2017).

Given their fixed income from pensions, fare-free public transport services have helped senior citizens save money for other expenses, such as medical costs (Mah & Kitra, 2017; Myung-Jin et al., 2018; Gabaldon-Estevan, 2019). This also led to an increase in public transport use and a decrease in automobile use by the senior population (Myung-Jin et al., 2018; Gabaldon-Estevan, 2019; Alousi-Jones & El-Geneidy, 2024). Although fare-free public transport may not be economically viable in the long term, it could increase usage among underprivileged groups (Mah and Mitra, 2017; Keblowski, 2020; Tanyag, 2021). If these services were discontinued, the elderly with lower incomes would be significantly affected (Mah & Mitra, 2017). For Keblowski (2020), public transport should be viewed as a 'common good' rather than a 'commodity', in order to serve as a public resource that meets the transport and mobility needs of all social groups, who rely heavily on this fare-free service, thereby promoting equity in society (Gabaldon-Estevan, 2019; Keblowski, 2020).

In a recent study by Dela Cruz et al. (2024), senior citizens have higher satisfaction levels than younger passengers because of priority boarding lanes and seats. They also care for comfort and cleanliness when using public transport (Sy & Regidor, 2024; Yun, 2023). Another significant concern is the height of public transport platforms or stairs, as they often struggle to board or alight from vehicles (Gumasing et al., 2018). Other factors that influence their use of public transport, specifically buses, include arrival times, service frequency, the availability of enough vehicles to accommodate passengers, travel time, and access to information (Sy et al., 2024). Transport infrastructure, such as sidewalks, should be well-maintained to ensure safety (Mare & Mitra, 2024). Additionally, functional elevators, lifts, ramps, pedestrian crossings, and traffic lights should be in good condition, and information and communication technologies regarding public transportation should be developed for seniors (Tanyag, 2021; Mare & Mitra, 2024).

3. METHODOLOGY

3.1 Situationer

Quezon City (QC), with a land area of 161 km², is the most densely populated among the 33 highly urbanized cities in the Philippines. According to PSA's 2020 report, QC has a population of 2.96 million people. Transportation in the city is mainly land-based. As of 2018, private vehicles accounted for 81.09% of the total volume, while public transport, including buses, jeepneys, UV Express, taxis, and tricycles, represented 15.2%. Industrial and commercial vehicles, such as trucks and vans, made up the remaining 3.71%, as noted in the Quezon City Ecological Profile, 2018. Within the city, jeepneys, buses, and UV Express are the most commonly used forms of public transport, which follow fixed routes for a set fare.

On March 16, 2020, the entire Luzon region, including Metro Manila, was placed under enhanced community quarantine (ECQ), which is the strictest category of lockdown imposed in the country. Public transportation was suspended during this period (ADB, 2022). Nonetheless, establishments, individuals, and activities related to food production, healthcare, and delivery services were allowed to operate at full capacity. Those engaged in the production and delivery of essential goods and services could operate at a maximum of 50% percent, while non-essential businesses were allowed to function with a skeleton workforce (IATF, 2020).

To support frontline healthcare workers, the Department of Transportation provided a free bus service starting on March 18, 2020. This service included stops at several hospitals across Metro Manila. However, the pickup points were located in the cities of Parañaque and Marikina.

Quezon City, a health tourism hub and home to several medical institutions, offered free rides for healthcare workers and frontliners in March 2020, providing transportation from QC Hall to hospitals within the city.

On December 7, 2020, the QC local government unit expanded its services and launched the Q City Bus Program. This initiative aimed to provide free and safe transportation to residents struggling to go to their workplaces at the height of the coronavirus disease (COVID-19) pandemic when public transportation was suspended. In addition, the program seeks to ease traffic congestion by allowing many passengers to travel in limited urban space.

The Q City Bus program operates across eight designated bus routes that cover major areas of Quezon City, with an average daily ridership of around 26,000 (Tab. 1). The buses follow a trip schedule and only stop at designated pick-up and drop-off points.

3.1 Data Collection and Analysis

The study employed both quantitative and qualitative data collection methods through surveys and interviews. The first phase of the research involved conducting in-person surveys between February 5 and 8, 2024. With the average daily ridership data obtained from the Traffic and Transportation Management Department (TTMD) of Quezon City, the sample size was calculated using Slovin's formula. The result was applied to the percentage of the total average daily ridership per bus route (Tab. 1). The researchers gathered 436 responses. For the purpose of this study, the focus was on a subgroup of 71 respondents (16.28%) who were identified as senior citizens and PWDs.

Table 1. Sample Size

Bus Route	Average Daily Ridership	Sample Size Using	Actual Sample Size
	.	Slovin's Formula	P
1 (QC Hall - Cubao)	3,886	58	66
2 (QC Hall - Litex/IBP Road)	5,395	81	92
3 (Aurora Katipunan - Welcome Rotonda)	915	14	15
4 (QC Hall - General Luis)	5,271	79	91
5 (QC Hall - Mindanao Ave.)	3,263	49	55
6 (QC Hall - Gilmore)	1,702	26	30
7 (QC Hall to C5/Ortigas Ave. Extension)	1,808	27	27
8 (QC Hall to Munoz)	3,970	60	60
Total	26,211	394	436

Source: Average Daily Ridership Data from Quezon City Traffic and Transport Management Department

The survey was structured into two sections. The first section establishes the socio-economic profiles of the respondents. The second section examined the reasons for using the Q City Bus service and satisfaction levels with the bus service quality attributes: 1) Availability (Frequency and reliability of the service, operation hours), 2) Accessibility (Ease of reaching the bus stop and getting on and off the bus), 3) Information (Availability of bus routes map and timetables), 4) Waiting (Time, Safety, and Facility), 5) Travel time, 6) Customer care (Helpful staff), 7) Comfort (Temperature, comfortable journey, cleanliness, crowding), 8) Security (Feeling safe and secure), 9) COVID Safe (Low chance of getting COVID), and 10) Bus route (Bus stop locations).

Cronbach's coefficient alpha was employed to measure the internal consistency coefficients of the ten bus service quality attributes included in the survey instrument through a pilot study with 27 passengers. The Cronbach's alpha was calculated to be 0.9737, indicating an excellent level of reliability. Respondents were asked to rate their satisfaction with the bus service quality attributes with a five-point Likert scale ranging from 5 (very satisfied) to 1 (very dissatisfied).

The results from the first phase of the study, which aimed to examine the effects of sociodemographic characteristics on passenger satisfaction, revealed that elderly passengers were more satisfied with the service than younger passengers, while no significant differences were found in satisfaction levels between PRMs and those without (Dela Cruz, et al., 2024).

The second phase was conducted to validate the survey results and deepen the understanding of the satisfaction and experiences of different groups, including males, females, the elderly, PWDs, pregnant women, and individuals carrying children or large items. On December 18, 2024, the researchers conducted follow-up semi-structured interviews using purposive sampling, deliberately targeting participants within the selected group. Among the 44 interview participants, 17 were elderly and PWDs. All interviewees were users of bus route 4, which has the longest trip distance among the eight bus routes.

The data collected from both surveys and interviews were analyzed using descriptive statistics. The passenger satisfaction rates were calculated by assigning numerical values to the response options on a Likert scale. These values were then multiplied by the number of respondents who selected each option, and the sum was divided by the total number of respondents. The resulting mean score ratings indicated the overall satisfaction levels among passengers.

4. RESULTS AND DISCUSSION

4.1 Socio-Demographic Profile of Elderly and Persons with Disabilities Using Q City Bus

Out of a total of 436 responses collected, 71 (16.28%) of the participants were identified as senior citizens and PWDs (Tab. 2). Within the subset, the majority were aged 60 years old and above (38%). More than half of the participants were female (59%) while 41% were male. Nearly half of the participants were single (48%), 39% were married, and the remaining participants were widowed (8%), separated (3%), or common-law union/live-in (1%).

A significant number of participants resided in Quezon City (79%), 13% reported living in other cities in the National Capital Region (NCR), and 12% lived outside the NCR. The majority of the participants indicated that their office/school/travel destination was in Quezon City (96%), with just 3% traveling to other NCR cities and 1% outside the NCR.

Looking at the occupational data, 42% of the participants were unemployed, 24% worked in the private sector, 21% were self-employed, and 13% were government workers. Most respondents belonged to the poor, low-income, and lower-middle-income classes. Almost half of the participants earned less than \$\mathbb{P}10,957\$ (46%), 30% indicated monthly household income ranging from \$\mathbb{P}10,957\$ to \$\mathbb{P}21,194\$, while 13% earned between \$\mathbb{P}21,194\$ to \$\mathbb{P}43,828\$. About 24% of the respondents reported owning a car, while 75% indicated having a physical disability or chronic condition.

Table 2. Socio-Demographic Profile of Elderly and PWDs Using Q City Bus

Socio-Demographic	Frequency	Percentage	Socio-Demographic	Frequency	Percentage
Characteristics			Characteristics		
Age			Location of Office or Tr	avel Destination	n
10-14	1	1	Quezon City	68	96
15-19	5	7	Other NCR Cities	2	3
20-24	4	6	Outside NCR	1	1
25-29	3	4	Total	71	100
30-34	6	8	Occupation		
35-39	3	4	None	30	42
40-44	1	1	Self-Employed	15	21
45-49	11	15	Private Employee	17	24
50-54	8	11	Government Employee	9	13
55-59	2	3	Total	71	100
60 and above	27	38	Monthly Household Inc	ome	
Total	71	100	Less than ₱10,957	33	46
Sex at Birth			Between ₱10,957 to	21	30
			₽ 21,194		
Male	29	41	Between ₱21,194 to	9	13
			₱43,828		
Female	42	59	Between ₱43,828 to	4	6
			₱76,669		
Total	71	100	Between ₱76,669 to	3	4
			₱131,484		
Marital Status			Between ₱131,484 to	1	1
			₱219,140		
Single	34	48	Above ₱219,140	0	0
Married	28	39	Total	71	100
Common-law	1	1	Family Car Ownership		
union/live-in					
Separated	2	3	Yes	17	24
Widowed	6	8	No	54	76
Total	71	100	Total	71	100
Place of Residence			Disability or Chronic Co	ondition	
Quezon City	54	79	Yes	53	75
Other NCR Cities	9	13	No	18	25
Outside NCR	8	12	Total	71	100
Total	71	100			

4.2 Trip Purpose

To understand the purpose of their trip using the Q City Bus service, respondents were asked to indicate all options that applied. The primary purpose of the trips of elderly and PRMs using Q City Bus is to return home (38 individuals). Meanwhile, 28 passengers availed of the service to go to their workplaces, 12 used the bus to go to the hospital, and another 12 visited their family or friends. Other reasons for using the free bus service include going to school, engaging in business, going to Quezon City Hall, shopping or entertainment, attending church, and leisure activities. (see Fig. 1).

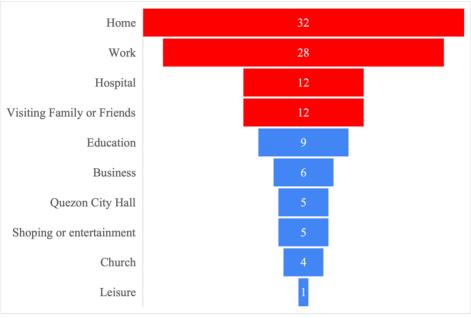


Figure 1. Trip Purpose

4.3 Frequency of Availing of the Q City Bus Service

Fig. 2 shows the frequency of Q City Bus service usage among senior citizens and PWDs. The survey results indicated that many passengers avail of the service once or twice a week (44%), 25% use it 3 to 4 days a week, 21% ride it 5 to 6 days a week, and 10% ride it daily. Overall, the results suggest that the service is widely utilized for their commuting needs.

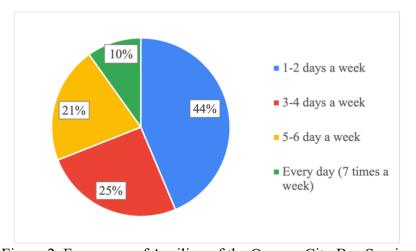


Figure 2. Frequency of Availing of the Quezon City Bus Service

4.4 Passenger Satisfaction with the Q City Bus Service

When frequency analysis was applied, the data showed that many expressed high levels of satisfaction with the Q City Bus service in terms of the identified quality attributes. However, 10 passengers, accounting for 14%, were somewhat dissatisfied with Waiting (waiting time, safety, and facility) (Fig. 3).

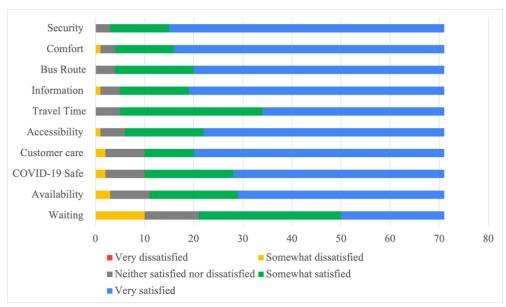


Figure 3. Passenger Satisfaction with the Q City Bus Service

Among the bus service quality attributes, *Security* received the highest mean rating of 4.75, followed closely by *Comfort* with a mean score of 4.70, while the lowest-rated attribute was *Waiting* (Tab. 3). Nevertheless, the overall mean score of 4.50 indicates a high level of overall passenger satisfaction.

Table 3. Passenger Satisfaction with the Q City Bus Service

Bus Service Quality Attributes	Mean	Median
Security (Feeling safe and secure)	4.75	Very satisfied
Comfort (Temperature, comfortable journey, cleanliness,	4.70	Very satisfied
crowding)		-
Bus Route (Bus stop locations)	4.66	Very satisfied
Information (Availability of bus routes map and timetables)	4.65	Very satisfied
Accessibility (Ease of reaching bus stops and getting on and off	4.59	Very satisfied
the bus)		•
Customer care (Helpful staff)	4.55	Very satisfied
Travel Time	4.45	Very satisfied
COVID-19 Safe (Low chance of getting COVID)	4.44	Very satisfied
Availability (Frequency and reliability of the service, operation	4.39	Very satisfied
hours)		•
Waiting (Waiting time, safety, and facility)	3.75	Somewhat Satisfied
Overall satisfaction	4.50	Very satisfied

4.5 Interview Results

4.5.1 Interview Participants

The researchers conducted interviews with a total of 17 participants, comprising 11 (65%) females and six (35%) males. Of which, two (12%) were senior citizens, seven (41%) were PWDs below 60 years old, and the remaining eight (47%) were PWDs 60 years old and above. Most of them have mobility-related disabilities (35%). There were also participants who reported having both mobility-related disability and deafness or hearing difficulty (12%). Another 12% reported co-existing health conditions, arthritis, and hypertension. Other disabilities or chronic health issues included diabetes, psychosocial disability, and heart problems (Tab. 4).

Table 4. Interview Participants

Characteristics	Frequency	Percentage
Sex at Birth		
Male	6	35
Female	11	65
Category of Interviewees		
PWD below 60 years old	7	41
PWD 60 years old and above	8	47
Senior Citizen	2	12
Type of Disability or Chronic Health Condition		
Mobility-related disability	6	35
Deafness or difficulty of hearing and mobility-		
related disability	2	12
Arthritis and hypertension	2	12
Asthma	1	6
Diabetes	1	6
Diabetes and heart problem	1	6
Mobility-related disability and psychosocial		
disability	1	6
Hypertension	1	6
Not applicable	2	12

4.5.2 Reasons and Frequency of Using the Q City Bus Service

The primary reason for availing of the Q City Bus is the offer of free fare. Beyond cost savings, many passengers ride it to access healthcare services. Other key factors include accessibility (convenience of reaching the bus stop), visiting family or friends, and commuting to work (Fig. 4).

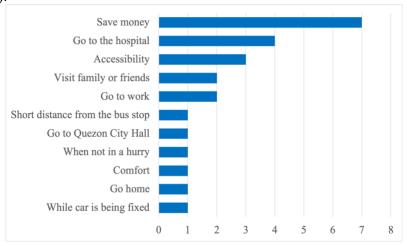


Figure 4. Reasons for Using the Quezon City Bus Service

Approximately 50% of the interview participants rely on the Q City Bus for their daily commuting needs. Among them, 25% utilize the service five days a week to commute to and from work, while those who use the bus for medical appointments typically ride it twice a week (12%) or just once a week (13%) (Fig. 5).

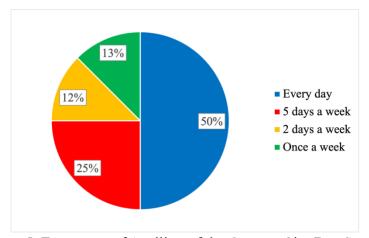


Figure 5. Frequency of Availing of the Quezon City Bus Service

4.5.3 Factors Affecting the Decision to Use the Q City Bus Service

When asked about the factors influencing their decision to use the Q City Bus service, the most frequently mentioned was the free fare. Six individuals learned about the service and explored it on their own, while others learned about it from friends, neighbors, or co-workers. Two participants ride the bus because of comfort. Another passenger shared that she availed of the free service daily to visit her child. It highlights the service's important role in maintaining social connections. Below are some of the statements from the participants:

"I saw the Quezon City Bus service and found out it is free. I tried it once and have since used it as my primary transportation mode."	"My co-workers use the bus, and they told me about it. I saw the bus stop and tried it once, and it became my preferred mode."	
Male, Senior citizen with hypertension	Female, 40-44 years old with mobility-related disability	
"A fellow dialysis patient told me about it. I saw the Quezon City Bus on my way to the National Kidney and Transplant Institute."		
Female, 40-44 years old with mobility-related and psychosocial disability	Female, 50-59 years old with heart problem and diabetes	

4.5.4 Key Considerations when Using the Q City Bus

The participants were asked to identify three things they consider important when using the Q City Bus service. From their responses, *Free, Accessibility,* and *Comfort* are the key factors that stood out.

For PWDs below 60 years old above, it is *Free, Comfort,* and *Accessibility*. The primary concerns for PWDs 60 years old and above are *Free, Accessibility*, and *Designated bus stops*. Among the elderly, *Free* and *Accessibility* are the important considerations (Fig. 6).



Figure 6. Three Factors Considered as Important when Riding the Quezon City Bus

When asked to choose the most important consideration among the three, PWDs below 60 years old chose *Accessibility*, while PWDs 60 years old and above chose *Free Fare*, *Availability* of service, and *Customer care* on equal footing. Among the elderly, the most essential are *Comfort* and *Information*. (Fig. 7). Overall, the key aspects considered by the participants are *Availability* and *Accessibility*.

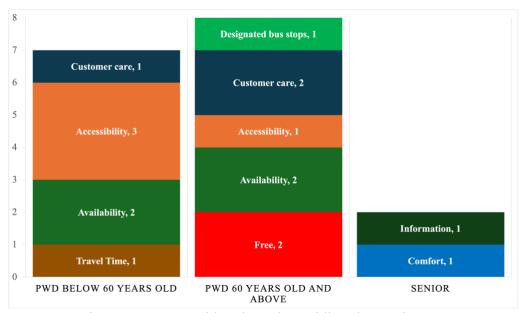


Figure 7. Key Consideration when Riding the Q City Bus

4.5.5 Unsatisfactory Bus Feature

Participants expressed dissatisfaction with several aspects, including waiting times, travel time, and customer care. The concerns on *Waiting* aligned with the survey results, where this attribute received the lowest satisfaction rating compared to all other attributes of the bus service quality evaluated (Fig. 8).

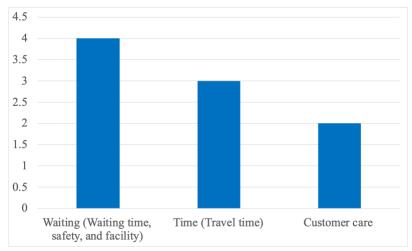


Figure 8. Unsatisfactory Bus Feature

4.5.6 Positive and Negative Experiences with the Q City Bus Service

In discussing their positive experiences with the Q City Bus service (Tab. 5), interview participants expressed their satisfaction with free fares. One participant shared that the free ride allowed her to allocate more of her resources for medical expenses. The bus service's designated stops enhance the experience as well; they minimize interruptions, unlike other public transportation options that frequently stop to pick up additional passengers. One participant noted the comfort of the journey because buses are air-conditioned and not crowded since standing is not allowed, unlike in other public transport modes. Moreover, the availability of seats in the waiting area adds to the overall positive experience; it allows passengers to rest and relax as they wait for their bus.

During peak hours, passengers experience long wait times even though they are tired and want to return home as soon as possible. One participant reported her experience of accidentally leaving her umbrella on the bus. Because the Lost and Found is centralized and located quite a distance away from the bus stop, it became inconvenient and tiring for her to retrieve the item. Another participant shared her disappointment after being denied boarding, despite there being vacant seats on the bus. This is one of the management strategies to accommodate other passengers boarding at mid-route stops.

Table 5. User Experience with the Q City Bus Service

Positive Experiences	Negative Experiences
"Aside from being free, the bus only picks up	"The waiting time after the rush hour is quite
additional passengers in designated stops. Unlike	long which makes it less convenient for those who
other bus services that would stop everywhere to	are tired and want to go home as soon as
pick up and cram more passengers inside the	possible."
unit."	
–Female, Senior citizen	Male, Senior with mobility-related disability
"The bus does not stop to pick up additional	"I left my umbrella once, so I checked the main
passengers except in designated bus stops. The	bus stop if they found an umbrella fitting my
ride is free, and it helps me use the freed-up	description. Unfortunately, the Lost and Found
resources to cover my medical expenses."	Area is centrally located and is quite far from my
•	location. It was quite inconvenient and tiring
Female, 40-44 years old with mobility-related	retrieving the umbrella."
and psychosocial disability	Female, Senior citizen

"Very comfortable units (air conditioned and not crowded). Designated bus stops means that the ride is not interrupted to pick up passengers all the time. Good queuing area for senior citizens (seated)."

--Female, Senior citizen with mobility-related disability

The staff did not allow me to get onto the bus even though there were still seats."

--Female, 50-59 years old with heart problem and diabetes

4.5.7 Suggestions to Improve the Quezon City Bus Service

Suggestions from the elderly and PWDs using the Q City Bus service (Tab. 6) highlight key areas for improvement: bus units, waiting areas, information, service management, and predictability of the bus schedule.

For the bus units, passengers suggested adding more buses, alongside regular maintenance of the existing fleet. The users also mentioned the need for better control of the temperature inside the bus.

Regarding waiting areas, the passengers suggested providing adequate lighting at bus stops to promote visibility and security during evening hours. They also suggested the establishment of a fixed waiting area to reduce confusion. During the interview period, the designated bus stop transitions throughout the day; it starts at the National Housing Authority (NHA) in the morning and shifts to Quezon City Hall by 5 PM. To enhance comfort, suggestions included adding tents for shade and benches for seating at the waiting in front of the NHA.

There were also suggestions to improve information dissemination, including posting a bus route map on each bus. In terms of service management, one participant suggested those claiming priority boarding should present identification card to verify their status. Another recommendation is to increase the allotment of priority passengers per trip, from the current limit of 10 to 15 or 20. Customer care is also of great concern. The staff should maintain a friendly and approachable demeanor. Predictability of the bus schedule is another significant concern. A user proposed to have a designated lane for Q City Bus to improve travel predictability. This would streamline operations and enhance the predictability of bus arrivals, which is also a concern of another participant.

Table 6. Suggestions to Improve the Q City Bus Service

Bus units	Service management
"Additional buses"	"Present an ID or proof that they are priority passengers."
"Regular maintenance of bus units"	"It may be good to revert to the practice of allotting 20 priority seats per trip instead of the current practice of 10 seats. If 20 seats are too much, perhaps they can allocate 15 priority seats per bus as a compromise."
Waiting area or bus stop	Predictability of bus schedule
"Add lighting in waiting areas to ensure the safety of users."	"Designate a bus lane for Q City Bus because it is traffic and to make the travel time predictable."
"Establish a fixed waiting area." "Improve the waiting area at the NHA; add more tents and consider adding benches."	"Predictability of bus arrival"

Information

"Some riders lack awareness that the bus will only drop off passengers at designated bus stops and not wherever they please. It might be good to provide a bus route map for each bus."

5. CONCLUSION

Economically disadvantaged and vulnerable populations, such as the elderly and PRMs, have largely benefitted from the Q City Bus service, which has become their preferred mode of transport. The free bus service also links them to essential activities, including commuting to work and home, accessing healthcare services, and maintaining social connections. The service bus service has helped them allocate resources to other necessities, especially for medical purposes.

Passenger satisfaction with the Q City Bus service is high, especially security, comfort, and bus route. However, there are notable areas that require improvement. Key aspects that need attention include waiting (time, safety, and facility), bus units, information, service management, and predictability of the bus schedule.

Although elderly and PRM passengers are drawn to the service because of free fare, accessibility, and comfort, the findings suggest that the service can attract not only low-income groups but also those with higher incomes and even car owners. Building on the knowledge of their satisfaction and experiences, further improvements in services and facilities could encourage more people to avail of the free bus service when traveling in the city and contribute to reducing traffic congestion and carbon emissions.

The study findings suggest the importance of incorporating universal design in transportation systems. This approach not only addresses the specific needs of elderly individuals and PRMs but also considers other persons with limited mobility, such as pregnant women, those traveling with infants or young children, those carrying luggage or large items, and those with injuries. A transportation system that caters to the needs of vulnerable groups and persons with mobility limitations is a better transport option for all. By eliminating barriers to accessibility in public transportation, passengers can have a satisfactory and positive experience, which can lead to increased usage of public transit for their trips.

Participatory approaches can enhance the planning and design of transportation facilities and services. Workshops, focus group discussions, and further engagements with vulnerable populations and minority groups to elicit feedback and deepen understanding of how transportation systems within the city impact their welfare will go a long way in ensuring that government investments are inclusive and responsive to their needs.

Regarding investment programming, given that passengers are somewhat dissatisfied with *Waiting* (time, safety, and facility), additional bus units can shorten intervals. In addition, prioritizing facility improvements, such as lighting, waiting sheds, designated queuing lanes, and seating in waiting areas, can make the user experience better.

The Q City Bus service has the potential for expansion and can be used as a means to encourage car users to opt for public transportation. Given this premise, further research could explore the concept of carbon offsets and their impact on improving environmental health and overall well-being.

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