

MOBILITY ISSUES AMONG THE ELDERLY IN KOTA KINABALU, SABAH: AN INITIAL STUDY

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Abstract: Ageing has become an issue of concern in developing countries such as Malaysia. Senior citizens are still able to contribute to employment, albeit with mobility demands. The purpose of this study is to explore mobility issues among the elderly. This study used a mixed-method approach. Purposive sampling survey forms were delivered to 644 people aged 60 years and above. The study interviewed three informants to support the research's findings. Data analysis used descriptive and inferential approaches such as percentages, mean scores and cross-tabulation. The results revealed that health had become a major mobility issue. Their limited access to public transport and unfamiliarity with Information and Communication Technology (ICT) has limited their choices of transportation such as e-hailing services. Most have strong support from their families or children to reach their destinations. However, not all elderly have access to a private car and do not live with children or other family members. The challenge is to improve public transit and enhance ICT usage to meet the mobility needs of the elderly. The findings can be utilised to generate ideas for local authorities and various agencies to develop policies and strategies to satisfy the mobility needs of the elderly.

Keywords: Elderly, ageing, mobility, public transportation, health, ICT issues.
Abbreviations: Information and Communication Technology (ICT).

Introduction

Ageing is becoming more prevalent in industrialised countries such as Japan, the United States, Europe, China, Hong Kong, and others. The increasing ageing population in developing nations such as Malaysia serves as a timely reminder for the government or community to undertake early preparations to improve the public transport system to meet the needs of older people. Malaysia's senior citizens population is projected to reach 3.2 million or 9.5% of the overall population by 2020, up from 2.1 million or 7.3% in 2011 (Department of Social Welfare Malaysia, 2018). The growth in Malaysia's senior population is attributable to decreased birth and mortality rates and increased life expectancy. Ageing has also affected the family structure in Malaysia, so, future planning is considered crucial in life (Ismail *et al.*, 2017).

Mariotti *et al.* (2018) stated that today's seniors are healthier, more educated and more active than previous generations. They still contribute to the country's socio-economy through professional fields. They are also consumers with high purchasing power, who may contribute to the country's economic progress (Dobbs *et al.*, 2016). Most senior adults in Malaysia engage in economic activities through self-employment, with 38.9% of male senior citizens and 20.4% of female senior citizens (Abu Bakar *et al.*, 2009). McPhee *et al.* (2016) contended that if given the option to engage in physical activities and motions, the elderly will embrace a healthy lifestyle. Thus, the increasing number of senior citizens has created a demand for improved transport systems (Siren & Hakamies, 2004).

Mobility is one of the main aspects of improving people's quality of life, which includes various dimensions such as housing, transportation, employment, and social interaction (De Jong & Brouwer, 2012). However, the elderly face various mobility barriers that affect their quality of life. Mohamed and Rostam (2012) stated that the quality of life of the elderly in Selangor is deteriorating due to ageing. Respondents in the survey had hearing, vision, movement, memory, and cognitive problems. The nature and symptoms of ageing have hindered their mobility, and the problem will worsen if transportation facilities no longer assist the elderly in their mobility.

The elderly are among the groups requiring special needs due to their declining physical and mental abilities (Engels & Liu, 2011). They still need to independently access health centres, shopping centres, and recreational areas (Fatima & Moridpour, 2019). Most own a vehicle but cannot drive (Wong *et al.*, 2018). Accordingly, an important component is their accessibility through transport modes. Public transport is an alternative that can provide mobility for this group of people. Studies by Szeto *et al.* (2017) and Oyesiku *et al.* (2018) found that transit buses are the primary choice of seniors compared to other transportation modes.

The elderly often depend on children or other people to go to any destination or find an area with the nearest facilities (Maggied, 1982). However, only public transport can take them anywhere without bothering or helping anyone. A study by Dickerson *et al.* (2007) stated that most seniors have less income and are below the poverty line, which causes a higher dependence on public transport. Public transport services must be user-friendly, especially in developing countries (Wong *et al.*, 2018).

ICT as a service market (or digitisation) combines consumer transport services through information technology platforms (Rodrigue, 2020) and e-hailing services such as Uber, Lyft and Grab, to meet mobility needs. However, most senior citizens face digital literacy

problems (McDonough, 2016). This study was conducted to identify the mobility issues of the elderly in Kota Kinabalu.

Literature Review

The Elderly

The elderly are defined as people aged 60 and above by the United Nations World Assembly on Ageing in Vienna (Albala *et al.*, 1997) and ASEAN (Department of Welfare Malaysia, 2020). According to Orimo *et al.* (2006), the elderly are classified into two groups: Early elderly and late elderly. Early elderly refers to seniors aged 65 to 74 years while the late elderly are those aged 75 and above.

Mobility

Mobility refers to a person's ability to move from one place to another liberally and safely. It usually decreases gradually with age (Rantakokko *et al.*, 2010). Mobility is not only an essential aspect of overall life satisfaction for older people but it is also a prerequisite for active ageing. This is critical for independence, and maintaining a healthy lifestyle and high quality of life (Tacken, 1998; Metz, 2000; Banister & Bowling, 2004; Whelan *et al.*, 2006; Spinney *et al.*, 2009). Mobility, which incorporates several dimensions such as housing, transportation, employment and social engagement is one of the most important factors in increasing residents' quality of life and satisfaction (Coughlin, 2001; De Jong & Brouwer, 2012). An individual's ability to travel or mobility is determined by the individual's resources such as finances, ownership of a personal car and physical capabilities (Giuliano *et al.*, 2003). The essential requirement for mobility is that each movement is done with consideration for the associated risks and expenses, as well as being acceptable to a person (Szołtysek & Otręba, 2016). If the effort or expense is insufficient to justify the benefit generated by the movement, the movement may be terminated. As a result of mobility obstacles, demands are unmet, and quality of life will suffer.

Mobility is not only an essential aspect of overall life satisfaction for the elderly but also a requirement for active ageing. The elderly's movement and spatial interaction are critical for society's effective social, political and economic development to meet their physical needs. Olawole and Aloba (2014) argued that the implications of mobility needs, access to basic needs and demand for transportation services become policy planner indicators. Bell (1979) recognised two aspects connected to the need to comprehend the challenge of the elderly in transportation. Firstly, the elderly's lifestyle begins with demand and the varied travel patterns of the still-working adult population. Secondly, physical infirmity and age increase the risk of serious accidents that are rare among younger people such as fractures from falls.

They found that the elderly tend to have high travel peaks during their early retirement years, then drop as they reach the age of 75. In the research, the hurdles to seniors travelling include time restrictions, financial constraints and lack of family companionship. The study found that respondents were more anxious in areas where many were still employed.

Transportation Convenience Barrier

Most of the elderly cease driving due to bad health (Fatima & Moridpour, 2019) and opt to utilise public transport (Marriott *et al.*, 2018). Studies by Szeto *et al.* (2017) and Oyesiku *et al.* (2018) found that transit buses are the primary choice of seniors compared to other transportation modes. However, the effectiveness of public transport services needs to be improved through its design and services. Comfort, safety and accessibility are their primary concerns in public transportation (Wong *et al.*, 2018). The absence of this transportation requirement affects the quality of life of the elderly (Alavi *et al.*, 2017). The elderly living alone or without family support need transportation to clinics, hospitals, and other locations to meet essential requirements (Alavi & Rahim, 2010). According to Sundara Sakaran and Mohd Noor (2020), even though Kota Kinabalu City has high-accessibility public transport options, some

major routes have issues. The minibus's comfort level is inadequate compared to its accessibility and safety. The options for older persons are restricted, with only a few forms of mobility available such as automobiles, motorcycles and bicycles. Industrialised countries such as Japan, the United States and the United Kingdom have more alternatives such as surface and underground city trains, buses, minibuses, and bicycles (Shafii & Shareh Musa, 2010).

Health Issues

The elderly continue the struggle of life and one of the priorities is the need for mobility. Although human lifespans are now longer, it does not necessarily mean people will remain healthy. Nevertheless, the increasing age of the elderly has an effect. A study by Musselwhite *et al.* (2015) found that 10% of the elderly population in China and 18% in India experienced physical health problems. A study by Husin and Alavi (2016) showed that mobility decreases with age. Their mobility depends on their level of health, which decreases with age (Lee & Bowes, 2016). For example, for elderly people with health problems that limit their ability to operate vehicles such as heart disease and nerve and muscle weakness, it is easier to lower their mobility ability (Foley *et al.*, 2002). Travel is typically characterised by relatively short distances and low frequency due to movement capabilities (Liu *et al.*, 2017).

Ho Bee Kiau (2016) focused on groups of seniors who are most vulnerable to driving dangers. Senior drivers have poor reaction time and visual impairments (Goggin *et al.*, 1989; Fozard, 1990; Albala *et al.*, 1997). They have issues with diminished vision and hearing function, and extremely sluggish motions delay their responses, endangering other drivers on the road. Other groups in society will marginalise the elderly over time (Carp & Board, 1988). Elderly persons are discouraged from driving because the loss of self-driving ability has influenced the elderly's way of life due to decreased personal confidence and accessibility to the tasks to be performed (Latif, 2019).

Lack of Information and Communication Technology (ICT) Exposure

ICT has transformed how we communicate and contribute to societal innovation. ICT benefits society in areas such as work, everyday living, social activities, education and trade. However, elderly persons need more ICT exposure and have limited access to information, commodities and services. The elderly are sometimes referred to as ‘technophobic’ since they are unfamiliar, hesitant and inexperienced in using ICT (Neves & Amaro, 2012). The Oxford Dictionary (2010) defines ‘technophobia’ as people who fear, dislike or avoid new technology. E-hailing is a contemporary trend and one of the most recent alternate forms of transport. The elderly who are unable to use ICT will be denied access to this more convenient and safer mode of transport. According to Mitra *et al.* (2019), a person’s background influences the rate of usage of e-hailing services, with younger, educated, high-income seniors and those living privately being more likely to use e-hailing services. Smartphone ownership significantly impacts the elderly’s utilisation of on-demand e-hailing services. Bivariate study results showed that senior users travel more in transit than non-users, implying that e-hailing services have the potential to act as a supplemental public transportation for the elderly (Mitra *et al.*, 2019).

Material and Methods

The research used a mixed method, with a cross-sectional survey approach followed by in-depth interviews. Kota Kinabalu has a population of 134,600 seniors aged 60 years and above (Department of Statistics Malaysia, 2017). Based on Krejcie & Morgan’s (1970) study, a maximum of 644 sets of questionnaire forms were distributed to a sample of respondents. The questionnaire used a four-point Likert scale – ‘strongly disagree’, ‘disagree’, ‘agree’ and ‘strongly agree’ – to obtain information on seniors’ mobility difficulties. All items in the Likert scale were obtained from a pilot study.

The data collected were analysed using the Statistical Package for Social Sciences (SPSS)

and Microsoft Office Excel. The distribution of the questionnaire data was examined to determine the mean scores’ frequency, percentage and average value. In addition, a crosstab analysis was performed to determine the link between the demographic profile of the respondents and the variables. Data acquired using the Likert scale will be interpreted utilising the mean score (Azman *et al.*, 2013). A score of 1.00 to 2.33 indicated a low mean value, 2.34 to 3.66 indicated a medium mean value, and 3.67 to 5.00 indicated a high mean value. Three informants aged 60 to 80 were interviewed. The interviews were compiled thematically, triangulated and transcribed into verbatim data.

Kota Kinabalu has a land area of 352.10 square kilometres and is the state capital of Sabah (Figure 1). The city of Kota Kinabalu has drawn the attention of scholars due to its faster socio-economic growth than other districts in Sabah. With an annual population growth rate of 0.2%, Sabah’s population grew from 3.89 million in 2018 to 3.90 million in 2019. In 2019, the citizen population accounted for 71.1% of Sabah’s total population (Department of Statistics Malaysia, 2017).

Results and Discussion

Demographic Characteristics

Table 1 shows that 42.6% of respondents were aged 60 to 64 and 10.1% of them were older than 75 years. Female respondents (50.1%) slightly outnumbered males (49.9%). Malays were the largest ethnic group of respondents (26.9%), followed by Kadazan (19.1%), Murut and Indian (14.7%), and Dusun (12.4%). Minority races included Bajau (9.0%), Chinese (6.2%), Bugis (5.2%), and Suluk (5.2%). The majority of respondents were retired (37.7%) or not working after retirement (22.0%), and only a minority of those worked full-time, part-time, or only worked when needed (13.2%). Most respondents (49.6%) declared a monthly income of less than RM800.00, followed by

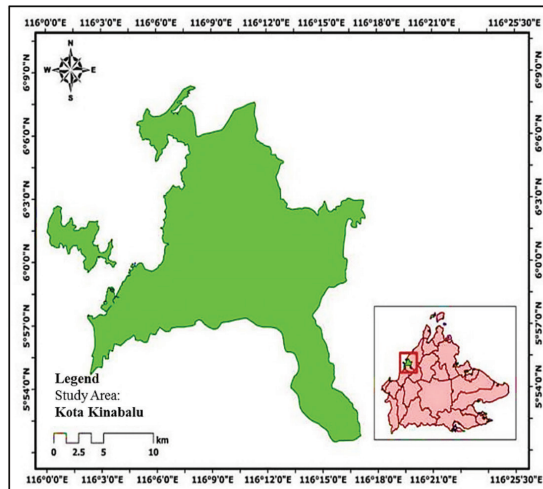


Figure 1: Study area map (Kota Kinabalu City, Sabah)

Table 1: Demographic characteristics

No.	Item	Categories
1	Age	60-64 (42.6%); 65-70 (27.4%); 71-75 (19.9%); >75 (10.1%)
2	Gender	Male (49.9%); Female (50.1%)
3	Ethnic	Malay (26.9%); Chinese (6.2%); Kadazan (4.4%); Dusun (19.1%); Bajau (12.4%); Bugis (9.0%); Suluk (5.2%); Siam (2.1%); Others (14.7%)
4	Employment status	Full-time (14.2%); Part-time (12.9%); No working (22.0%); Retired (37.7%); Others (13.2%)
5	Monthly income	<RM800.00 (49.6%); RM801.00-RM1500.00 (23.5%); RM1,501.00-RM2,000.00 (11.1%); RM2,001.00-RM2,500.00 (3.9%); RM2,501.00-RM3,000.00 (2.3%); RM3,001.00-RM3,500.00 (1.3%); RM3,501.00-RM4,000.00 (1.0%); >RM4,000 (7.2%)
6	Marital status	Single (8.5%); Married (68.2%); Widow (23.3%)
7	Household status	Stay alone (11.5%), Stay with spouse (15.1%), Stay with family (69.1%), Stay with relatives/friends (2.2%), Elderly care centre (2.2%)
8	Health problem/illness	Vision problem (26.2%); Exhaustion (10.9%); Diabetes (12.2%); Hypertension (15.7%); Heart attack (12.0%); Knee pain (19.6%); Others (3.5%)
Total		100%

RM801-RM1,500 (23.5%), whereas just 1% had a monthly income between RM3,501-RM4,000. Moreover, 60% of those surveyed were married or widowed (23.3%) and just 8.5% were single. Most respondents (69.1%) stayed with their family/children and only 2.2% stayed with friends/relatives and elderly care centres. The most common health issues reported by respondents were impaired vision (26.2%), knee pain (19.6%), high blood pressure (15.7%),

diabetes (12.2%), heart disease (12.0%), exhaustion (10.9%) and other illnesses such as stroke and Alzheimer.

Travel Patterns

(a) Elderly’s Ability to Drive

Figure 2 (a) shows that 66.9% of respondents no longer drive and only 33.1% still drive. This showed that the majority of respondents needed alternative transport to keep their mobility.

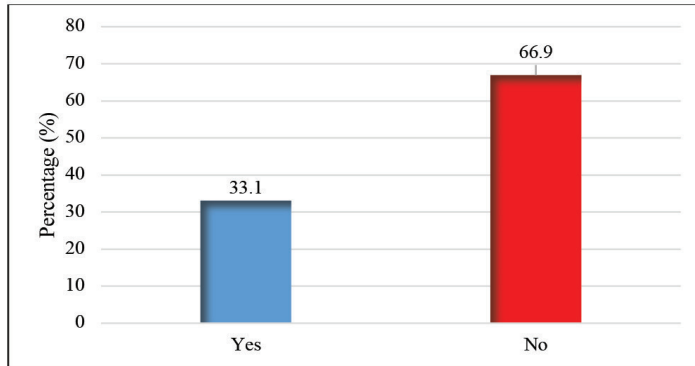


Figure 2 (a): Ability to drive for elderly

(b) Elderly’s Travel Time

Figure 2 (b) shows that 163 respondents mostly travelled in the morning (42.1%), followed by 76 respondents travelling at irregular hours (19.6%). Only 8% travelled at night, citing health problems such as blurred vision and difficulty driving. All age categories travelled mostly in the morning period. Furthermore, the elderly aged 60-64 preferred to travel in the afternoon with 22 respondents, followed by those aged 71-74 (20 respondents). The results showed that the elderly aged 75 and above travelled less than other age groups.

accounted for 33.4% of all transit. Driving private vehicles is the second most popular form of transportation, accounting for 25% of all trips, followed by walking (20%). Motorcycles (7.6%) and others (4.3%) such as trains, accounted for 21%. The use of public transport was low at only 8.3% while e-hailing/taxi services were not the main choice among the elderly, at only 0.8%. Overall, the researchers concluded that being a passenger was the choice of most elderly to travel to their destination.

(c) Modes of Transport Used by the Elderly

Figure 2 (c) depicts the modes of transportation utilised and destinations visited by elderly persons in Kota Kinabalu district. The elderly travelling as passengers in private vehicles

Mobility Issues Faced by the Elderly

Table 2 clarifies the mobility issues faced by the elderly in Kota Kinabalu City, Sabah. In general, the mean value is at a moderate and high level. The highest mean value is for ‘health problems’ at 3.95, as shown in Table 2.

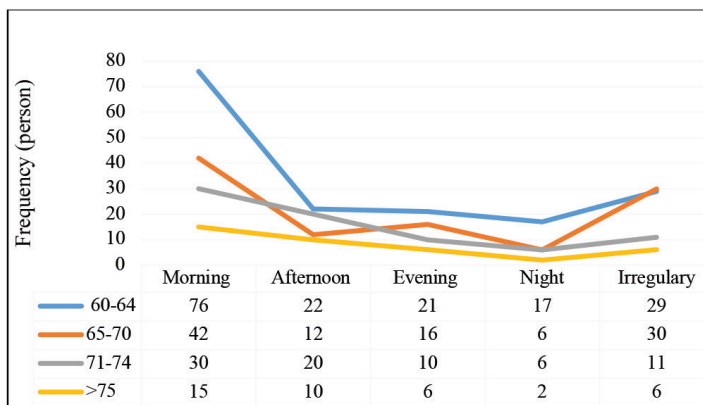


Figure 2 (b): Elderly’s travel time

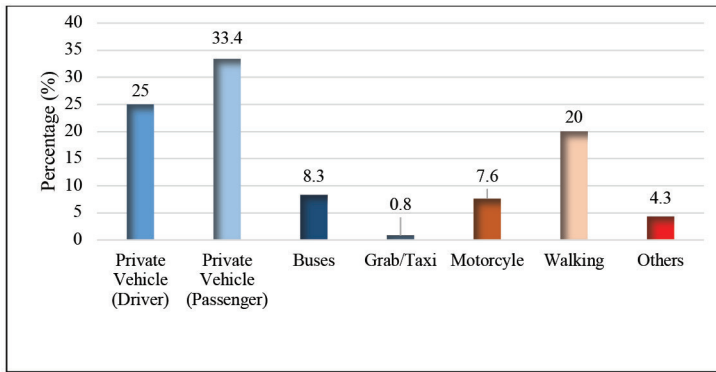


Figure 2 (c): Modes of transport used by the elderly

Table 2: Mobility issues faced by the elderly

No.	Item	Mean
1	Health problem	3.95
2	The housing area is far away from all destination	2.62
3	Not having a vehicle to move	3.22
4	No access to public transport services	3.89
5	Public bus services are not friendly to the elderly	3.55
6	Danger of walking	3.04
7	Danger of snatchers	3.20
8	Not proficient in using e-hailing	3.45
9	Difficulty in accessing travel information	3.05

The mean value for the item ‘housing area far away from all destinations’ was the lowest (2.62). The item ‘no access to public transport services’ (3.89) was the highest mean score value, and the item ‘public bus services are not friendly to elderly’ (3.55) was at the moderate level. In addition, the item ‘not proficient in using e-hailing’ has a mean value of 3.45.

Respondents also had a moderate view on the item ‘difficulty in accessing travel information’, for which the mean value was 3.05, and the mean value of 3.04 for the item ‘danger of walking’.

Based on the in-depth interviews, older people in Kota Kinabalu, Sabah encountered several mobility challenges (Table 3). The

Table 3: Health issues

Informant	Interview Information
Informant 1, aged 60 years old	“...Yes, I will not leave the house if I feel unwell. Due to knee arthritis, I cannot move or operate a vehicle...”
Informant 2, aged 65 years old	“...When driving, elderly like myself are exposed to accidents. I have vision difficulties (blurry eyes). Every once in a while, I have trouble differentiating the colour of traffic lights and have run red lights owing to hazy vision...”
Informant 3, a housewife aged 70 years old	“...Yes, this health issue does affect our mobility. For instance, I suffer from tiredness disease (asthma); thus, I cannot go far and do not climb stairs because I am old and become weary easily...”

results of interviews with Informant 1 (aged 60), Informant 2 (aged 65), and Informant 3 (a housewife aged 70) confirmed that their health issues prevented them from engaging in physical activities. These findings demonstrated that older people have the most mobility concerns due to health conditions.

In the meantime, health issues such as joint disease (knees), vision problems (blurry eyes), and exhaustion (asthma) are the primary factors preventing older people from moving. For instance, a 70-years-old housewife with asthma was unable to travel great distances or climb stairs.

In addition, the ‘lack of public transportation services’ and ‘unfriendly public transportation services for the old’ are problems that prevent older people from travelling long distances. The

informants’ concerns about the lack of access to public transportation services are provided in Table 4.

The public transport services in Kota Kinabalu such as the public buses are difficult to access, as passengers must walk to the side of the major road to wait for public buses. Additionally, the late arrival of public buses and the lack of dedicated seats for older people were mobility challenges that the 70-years-old housewife faced.

Table 5 is a summary of informant interviews about the issue of lacking proficiency in e-hailing transport services. E-hailing services require users to make reservations/calls via a smartphone application. This indirectly affects older people, who need to become more adept at utilising apps.

Table 4: Lack of public transport access

Informant	Interview Information
Informant 1, aged 60 years old	<i>“...The route surrounding the village is off-limits to public transportation; bus drivers only pick up passengers on the main road. I had to walk 10 minutes to the side of the road to wait for and board the bus. I am elderly, my movement is sluggish, and prolonged standing on the side of the road is unhealthy. I must also take two buses to reach the city centre of Kota Kinabalu, as the bus routes are distinct and predetermined. Due to my age, boarding and alighting the bus is tough...”</i>
Informant 2, aged 65 years old	<i>“...I enjoyed using public transportation to reach distant destinations; however, it is difficult to get public transportation here because bus drivers do not enter residential areas or towns. Therefore, we must walk to the side of the major road to await the coming of the bus; sometimes, I stand for a long time, which is difficult for an elderly person like m...”</i>
Informant 3, housewife aged 70 years old	<i>“...I believe the public bus is less senior-friendly since I must wait a long time for the bus, and there are no dedicated seats for the elderly. Consequently, I occasionally had to sit in a confined area, and the bus was often full...”</i>

Table 5: Not proficient in using e-hailing

Informant	Interview Information
Informant 1, aged 60 years old	<i>“...I’m not very good with technology (Grab) since it’s pretty challenging to enter the location information as needed by the Apps. Due to my advanced age and vision issues (blurry eyes), I am concerned about submitting incorrect data...”</i>
Informant 2, aged 65 years old	<i>“...Elderly persons, such as myself, are less adept at utilising Grab services since I have not learned and have no desire to use Grab services at the moment...”</i>
Informant 3, housewife aged 70 years old	<i>“...My children are the only ones in my family who are adept at using the Grab application to make reservations. I don’t know how to operate a smartphone because I only use a standard mobile phone...”</i>

In conclusion, Table 5 demonstrates that seniors aged 60 and older do not use Grab for transportation. According to Table 6, the elderly preferred private vehicles driven by their children and friends or public bus services. They needed to be more adept at using the Grab application, which requires entering location information on a mobile device, and because they feel they need to feel more secure about utilising e-hailing services.

A conclusion that may be drawn from the responses in Table 6 is that the elderly were highly reliant on the assistance of children or family members to get to their destination, particularly for those who do not drive private vehicles and do not utilise public transport. Mobility issues such as health problems, the absence of public transport services, unfriendly public transport services and the inability to use e-hailing services caused the elderly to rely

more on private vehicles driven by their family members/children to meet their mobility needs.

Figure 3 shows the type of Internet-access devices respondents possess. More than 60% of respondents do not have any device to access the Internet. Smartphones comprised 28.4% of equipment owned by respondents, with computers or laptops contributing 6.7%. Finally, 4.7% had Internet service such as an Internet package or Wi-Fi access.

Variables and Associated Relationships

Age and Ability of Driving amongst the Elderly

There is no significant association between respondents’ age and ability to drive. However, the frequency distribution in Table 7 showed that the older they become, the less inclined they are to drive. Only 40.6% of those aged 60 to 64 years were still driving, followed by 24.2% aged

Table 6: Depending on family/children

Informant	Interview Information
Informant 1, aged 60 years old	<i>“...If an emergency necessitates long-distance travel, I will ask my children or friends who can still drive for assistance, as I am not adept at using Grab or public transportation...”</i>
Informant 2, aged 65 years old	<i>“...I will ask the children for assistance in reaching my desired location. My children have their vehicle and live in the same house, and this alternative is safer than public transportation, so I am concerned about passengers waiting too long alone...”</i>
Informant 3, housewife aged 70 years old	<i>“...Because of my age, I’m not excellent at making Grab reservations, so I ask my child to send and pick me up when I want to go for a walk to the clinic, the next town, or the city centre...”</i>

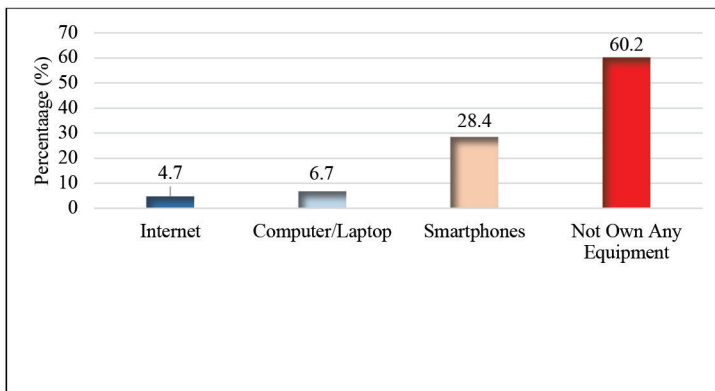


Figure 3: Ownership of equipment to access the Internet

Table 7: Age and ability of driving among elderly

Age (years)	Ability to Drive (%)	
	Yes	No
60-64	40.6	43.6
65-70	24.2	29.0
71-74	22.7	18.5
>75	12.5	8.9
Total	100	100

Chi square = 2.729, significant = 0.235.

65 to 70 years, 22.7% aged 71 to 74 years, and 12.5% aged 75 and above.

Gender and Driving Ability among the Elderly

According to Table 8, more male respondents (54.7%) were able to drive as compared to females (45.3%). The ability to drive is closely related to overall movement (Giuliano *et al.*, 2003). For the elderly, especially men, driving has become a big part of their adult lives and is very much related to their role in the family and society.

Discussion

Latif (2019) stated that the elderly are exposed to the risk of road accidents due to failure to comply with traffic laws. Based on the findings, most of the elderly no longer drive and will avoid going out at peak times such as in the evening and at night. Peak periods are typically associated with road congestion, causing the elderly to choose alternate travel times to be safe, as navigating peak-hour traffic requires focus and quick responses.

The elderly travel in quite different ways than other age groups; they prefer private vehicles either as a passenger or driver or walking to their destination. Men, on the other hand, are more likely to drive than women. According to Giuliano *et al.* (2003), driving among male seniors is directly connected to their position as head of household to manage matters outside the home. Still, female seniors rarely desire to leave the house if there are no essential affairs.

The mobility issues of the elderly are primarily due to health problems that limit the movement of an individual to access his needs. Schultz (1995) argued that most seniors nowadays need to rely on movement aids to balance their body coordination. As a result, health concerns have reduced their ability to move freely and the elderly will lose the opportunity to fulfil particular demands and desires in life.

Inadequate transportation services in a community have also stopped the elderly from enjoying life after retirement. The inadequate transport quality will also influence senior

Table 8: Gender and ability of driving among elderly

Gender	Ability to Drive (%)	
	Yes	No
Male	54.7	45.3
Female	45.3	54.7
Total	100	100

Chi square = 13.455, significant 0.193.

people's decision to continue using public services, particularly in terms of comfort, safety, and accessibility. The elderly are more sensitive to the effectiveness of public transport due to declining health, causing them to prefer private vehicles. However, the use of private vehicles increases their exposure to risks.

Because of a digital gap from various cultural origins, the elderly nowadays are less skilled in ICT. According to Neves and Amaro (2012), older persons are less likely to utilise ICT nowadays. They also prefer face-to-face communication because it facilitates the transmission of knowledge.

Conclusions

This article examines several mobility issues amongst the elderly, especially in Kota Kinabalu, Sabah. Health factors, the ineffectiveness of public transport, and not being familiar with the e-hailing system caused the elderly to acquire alternative transportation to sustain their freedom of movement.

The most crucial issue regarding the effectiveness of buses is the lack of facilities for the elderly (Noor *et al.*, 2014). Therefore, the time has come for the effectiveness of public transport to be prioritised. Safety, comfort and accessibility in public transport services are essential in providing mobility facilities for the elderly. The public transportation system must be safe and highly accessible to improve socio-economic growth and the community's quality of life. Several policies have been formed to take care of the welfare of older people in Malaysia. They get a discount of between 25% and 50% for ground transport fares. Still, what is needed is a clear policy and strategy to improve public transport mobility based on their physical condition.

ICT makes it easier for older adults to obtain transport services without depending on their families. ICT provides access to travel information, selection of transport modes, location distances and payment of fares. All of these features will facilitate seniors to plan

trips. Therefore, they needed to be more skilled in using e-hailing transport services. Public transport agencies could provide seniors training on new technologies and convince them that e-hailing is safe, comfortable and reliable.

This paper has shown that most respondents live with their families and children. Thus, the dependence on family members for seniors' mobility is high. Those who do not drive will depend on their children or family to reach a destination. Accordingly, public agencies must inculcate the culture and role of parental care. However, the necessity for the elderly to travel freely and independently is an agenda that local authorities should address. This is to ensure the welfare of elderly citizens for the country's socioeconomic well-being.

This study has limitations that must be explored in future studies. Most respondents of this paper were those who live with their families. Future studies must focus on the elderly who live alone, whether they have never been married, have no family/children or have been abandoned by family. This group is seen to be more in need of high-accessibility facilities. Future studies also need to focus on alternative transport modes (vans or shuttles), volunteer drivers and innovation in using ICT to meet the elderly's physical needs and contribute to the country's socio-economic well-being.

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Conflict of Interest Statement

The authors declare that they have no conflict of interest.

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