A STUDY ON PREFERRED TRANSPORTATION MODE AMONG ELDERLY IN KLANG VALLEY

EVELYNN CHAN TUNG LIN

BACHELOR OF BUILDING AND PROPERTY MANAGEMENT (HONOURS)

UNIVERSITI TUNKU ABDUL RAHMAN

FACULTY OF ACCOUNTANCY AND MANAGEMENT
DEPARTMENT OF BUILDING AND PROPERTY MANAGEMENT

DECEMBER 2022

EVELYNN	TMAE	BBP (HONS)	DECEMBER 2022

A STUDY ON PREFERRED TRANSPORTATION MODE AMONG ELDERLY IN KLANG VALLEY

BY

EVELYNN CHAN TUNG LIN

A research project submitted in partial fulfillment of the requirement for the degree of

BACHELOR OF BUILDING AND PROPERTY MANAGEMENT (HONS)

UNIVERSITI TUNKU ABDUL RAHMAN

FACULTY OF ACCOUNTANCY AND MANAGEMENT
DEPARTMENT OF BUILDING AND PROPERTY MANAGEMENT

DECEMBER 2022

Copyright @ 2022

ALL RIGHTS RESERVED. No part of this paper may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, graphic, electronic, mechanical, photocopying, recording, scanning, or otherwise, without the prior consent of the authors.

DECLARATION

We hereby declare that:

(1) This undergraduate research project is the end result of our own work and that due acknowledgement has been given in the references to ALL sources of information be they printed, electronic, or personal.

(2) No portion of this research project has been submitted in support of any application for any other degree or qualification of this or any other university, or other institutes of learning.

(3) The word count of this research report is ___12076_____.

Name of Student:	Student ID:	Signature:
_Evelynn Chan Tung Lin___	_1806519_____	

Date: __08/12/2022_____

ACKNOWLEDGEMENT

First of all, I want to express my gratitude for the assistance I received during the development of my final year projects.

I want to start by thanking my supervisor, Sr Amalina Azmi, for her advice and assistance in getting this research done. Sr. Amalina helped me with the development of the study and regularly followed the status of my final year project progress.

Second, let me express my gratitude to Ms. Puteri Ameera, who was my second examiner. She provided me advice and some VIVA suggestions (FYP presentation). She also gave me advice on how to change my research to get better results.

Thirdly, I want to thank Ms. Nurhayati Md. Khair, who is also the project coordinator for the research. She provided direction on what we should undertake for this course and instructed the FYP students on how the research study would be conducted.

Last but not least, I want to express my gratitude to all the responders who took part in my research study. Expressed appreciation for them giving up their time to participate in the survey and fill it out.

Table of contents

Copyright @ 2022 ii
DECLARATION iii
ACKNOWLEDGEMENT iv
LIST OF TABLES viii
LIST OF FIGURES ix
LIST OF ABBREVIATIONS x
LIST OF APPENDICES xi
PREFACE xii
ABSTRACT xiii
CHAPTER 1: RESEARCH OVERVIEW 1
1.0 Introduction 1
1.1 Research Background 1
1.2 Problem Statement 4
1.3 Research Questions 6
1.4 Research Objectives 6
1.5 Significance of study 6
1.6 Chapter Layout 7
1.7 Conclusion 8
CHAPTER 2: LITERATURE REVIEWS 10
2.0 Introduction 10
2.1 Elderly 10
2.1.1 Characteristic of Elderly 12
2.1.2 Elderly's Income Level 13
2.2 Transportation 14
2.2.1 Private Transportation 15
2.2.2 Public Transportation 16
2.3 Klang Valley Region 17
2.4 Factors affecting the elderly choice in transportation mode 18
2.4.1 Cost Savings 19
2.4.2 Convenient 19
2.4.3 Trip Time 20
2.4.4 Lifestyle 20

2.5 Conceptual Framework 21
2.6 Conclusion 22
CHAPTER 3: METHODOLOGY 23
3.0 Introduction 23
3.1 Research Design 23
3.2 Data Collection Methods 24
3.2.1 Primary Data 24
3.2.2 Secondary Data 25
3.3 Sampling Design 26
3.3.1 Target Population 26
3.3.2 Sampling Frame 26
3.3.3 Sampling Elements 27
3.3.4 Sampling Technique 27
3.3.5 Sampling Size 28
3.4 Research Instrument 29
3.4.1 Design of Questionnaire 29
3.4.2 Pilot Test 29
3.5 Construct Measurement 30
3.5.1 Scale of Measurement 30
3.5.2 Nominal scale 30
3.5.3 Ordinal Scale 31
3.5.4 Likert Scale 32
3.6 Data Processing 32
3.6.1 Data Checking 33
3.6.2 Data Editing 33
3.6.3 Data Coding 33
3.6.4 Data Transcribing 33
3.6.5 Data Cleaning 34
3.7 Data Analysis 34
3.7.1 Descriptive Analysis 34
3.7.2 Reliability Test 35
3.8 Conclusion 36
CHAPTER 4: DATA ANALYSIS 37

4.0 Introduction 37
4.1 Descriptive analysis 37
4.1.1 Respondent Demographic Profile 37
4.1.2 Central Tendencies Measurement of Constructions 44
4.2 Scale Measurement 45
4.3 Descriptive Analysis 47
4.3.1 Descriptive Statistic 47
CHAPTER 5: DISCUSSION, CONCLUSION, AND IMPLICATIONS 51
5.0 Introduction 51
5.1 Descriptive Analysis 51
5.1.1 Respondent Demographic Profile 51
5.1.2 Scale Measurement 53
5.1.2 Descriptive Statistic 53
5.2 Discussion on Major Findings 54
5.2.1 Research Objective 1 (RO1): To investigate the preferred transportation mode among elderly in Klang Valley. 54
5.2.2 Research Objective 2 (RO2): To determine the factors affecting the elderly choice in the transportation mode. 55
5.3 Implications of the study 57
5.4 Limitation of the study 58
5.4.1 Limited researchers for this study 58
5.4.2 Small sample size 58
5.4.3 Distribution difficulty on questionnaire 58
5.5 Recommendation for future research 59
5.5.1 Completing with more researchers 59
5.5.2 Enlarge sample size 59
5.5.3 Different data collection method 59
5.6 Conclusion 60
REFERENCES 61
APPENDIX 74

LIST OF TABLES

Table 1: Cronbach's alpha scale 36
Table 2: Case Processing Summary for Reliability test 45
Table 3: Total of all items of Cronbach's alpha analysis 46
Table 4: Section B Cronbach's alpha analysis 46
Table 5: Descriptive Analysis for Section B Own Vehicle (Car) 48
Table 6: Descriptive Analysis for Section B Taxis or Ride-Hailing Service (Grab/GoCar) 48
Table 7: Descriptive Analysis for Section B Bus Service 49
Table 8: Descriptive Analysis for Section B Rail Service 49
Table 9: Descriptive analysis for preferred transportation mode among elderly 54
Table 10: Descriptive statistic on Section B Private Transportation 55
Table 11: Descriptive statistic on Section B Public Transportation 56

LIST OF FIGURES

Figure 1: The estimated elderly population older than 60 years in Malaysia from 1970 to 2040. 11
Figure 2: The life expectancy at Birth and at 60 years by Ethnicity, Malaysia, 1991-2015 12
Figure 3: The Klang Valley's location map and its cities. 18
Figure 4: Proposed conceptual Framework..... 21
Figure 5: Sampling Frame. 26
Figure 6: Taro Yamane Formula. 28
Figure 7: Example of Section A question 1 for nominal scale. 30
Figure 8: Example of Section A question 2 for ordinal scale. 31
Figure 9: Example of Section B own vehicle transportation mode for Likert scale. 32
Figure 10: Cronbach's Alpha Formula. 35
Figure 11: The pie chart of Gender of Respondents..... 37
Figure 12: The pie chart of Age Range of Respondents..... 39
Figure 13: The pie chart of the respondent currently staying in Klang Valley 40
Figure 14: The pie chart of the source for income 41
Figure 15: The pie chart of owning any vehicle in Klang Valley 42
Figure 16: The pie chart of health condition possessed by the elderly 43
Figure 17: The descriptive analysis of the preferred transportation mode among elderly 44
Figure 18: The pie chart of the preferred transportation mode among elderly..... 45

LIST OF ABBREVIATIONS

MWFCD	Ministry of Women, Family and Community Development
SWD	Social Welfare Department
DOSM	Department of Statistics Malaysia
MRT	Mass Rapid Transit
LRT	Light Rapid Transit
BRT	Bus Rapid Transit
KTM	Komuter
RQ1	Research Question 1
RQ2	Research Question 2
RO1	Research Objective 1
RO2	Research Objective 2
SPSS	Statistically Package for Social Science
UN	United Nations
EPF	Employees Provident Fund

LIST OF APPENDICES

Appendix 1.1: Survey Questionnaire 74

Appendix 1.1.1: Survey Cover Letter 74

Appendix 1.1.2: Certification Letter from UTAR 87

Appendix 2.1: SPSS output 89

Appendix 2.1.1: Demographic Information of the Respondents 89

Appendix 2.1.2: Central Tendencies Measurement of Constructs 93

Appendix 2.1.3: Reliability Statistic for Actual Research 94

Appendix 2.1.4: Descriptive Analysis for Section B 95

PREFACE

Due to the fact that the elderly population is increasing globally, every nation needs to handle this issue. As the elderly population grows every year, ageing has become a hot topic in Malaysia today. However, there are few studies on the preferred mode of transportation for elderly people in the Klang Valley. Therefore, research on the preferred mode of transportation for elderly is extremely valuable.

Public transportation will be crucial to assisting them maintain their active lifestyle even if they lose their ability to drive because today's elderly is more active than elderly of a similar age in the past (Shrestha et al., 2017). However, little research has been done on the accessibility and transportation alternatives for the elderly (Fatima, Moridpour, & Saghapour, 2020). To gain a better understanding of the elderly, it is essential for this research to learn about their preferred modes of transportation.

(Mohd et al., 2019) with this research study, writes on a related subject. Their study, however, is considerably different because it focused only on the elderly and was not conducted in the Klang Valley. The research examined the travel habits of residents of George Town, Penang. Beijing, China has also conducted studies for the elderly (Liu et al., 2017), however not for the variables that would influence their decision. The four elements that make up the conceptual framework of this study are cost-saving, convenient, trip time, and last but not least, lifestyle. The goal of this study is to determine not only the preferred method of transportation but also the factors that influence elderly's decisions about public and private transportation.

Prior to discussing the study's substance, I'd like to express my gratitude to everyone who helped with the research and make this study a success. They helped the researcher to successfully finish the investigation.

ABSTRACT

The topic of this research study is “A study on preferred transportation mode among elderly in Klang Valley”. This research study covered with five chapters, which are research overview, literature review, research methodology, data analysis, and discussion, conclusion, and implications.

This research study would investigate the preferred transportation mode among elderly in Klang Valley and determine the four factors affecting the elderly choice in the transportation mode. In the result, all four independent variables which inclusive of cost savings, convenient, trip time and lifestyle.

The method that used in research was quantitative research. The primary data were collected through questionnaire. The sample size of this study is 110 respondents. For the research instrument, there are two sections conducted in the questionnaire, which demographic of the respondents along with section B. Next, there are two data analysis such as descriptive analysis, and reliability analysis, will be carried out as well.

Lastly, the research will list out the limitation and recommendation for the future researcher so that this would help the future researcher in their study. It can serve as a guide for the future researcher to have deeper understanding on the preferred transportation mode among elderly in Klang Valley.

CHAPTER 1: RESEARCH OVERVIEW

1.0 Introduction

Chapter one is an overview of the whole research. The purpose of this research is to study the on preferred transportation mode among elderly in Klang Valley. This chapter includes the research background, problem statement, research objectives, research question, significance of the study, chapter layout, and conclusion.

1.1 Research Background

The population of elderly is growing in many countries, which is a worldwide issue that needs to be addressed by all countries (Julaihi et al., 2022). According to the World Health Organization (WHO), the percentage of adults 65 and older in Europe is anticipated to rise from 14% in 2010 to 25% in 2050 (Taasim, 2020). According to United Nation estimates, by 2050, there will be 1.5 billion people in the world who are 65 or older, up from 703 million for 2019 (Chang et al., 2022). In the evolution of the United States, one of the most important demographic trends has been the ageing of the population. Ages 65 and over are expected to make up 83.7 million of the population in 2050, roughly double the 43.1 million forecasts in 2012 (Kim, 2019). Consequently, it is anticipated that the produce a large amount age group would have a lesser future than older age group (Taasim, 2020).

In Malaysia, the elderly is classified as people 60 years of age and older under the Elderly National Policy (MyGovernment, 2022). This description is consistent with that offered at the Vienna World Assembly on Aging in 1982. The agencies within the Ministry of Women, Family and Community Development (MWFCD), including the Social Welfare Department (SWD), provide the services (MyGovernment, The

Elderly/Senior Citizens, 2022). The elderly population in Malaysia increased from 2.12 million in the third quarter of 2018 to 2.21 million in the third quarter of 2019 in line with the same trend (Safian et al., 2021). A 60-year barrier is sporadically employed in international literature, which is inconsistent (Astaras, et al., 2015). Statistic report by the DOSM mentioned that it has been an increment every year for elderly in Malaysia, that is an increment of 7.0% to 7.4% for elderly that is aged 65 and above from 2020 to 2021 (DOSM, 2021). The population of those 65 and older is growing while that of those 15 and younger is declining in Malaysia. As for aged 75 and above, Malaysia's population expanded at an average yearly rate of 3.91% from 113.75 thousand in 1971 to 739.64 thousand in 2020 (Knoema, 2021). As a result, the number of senior individuals in society and the number of elderly drivers on the roads both rise (Rosli et al., 2020).

The elderly population may have an even greater demand for travel than younger population given that they have more time for extracurricular activities and require extra social services and medical care (Mohd et al., 2019). Transport management and planning are built on an examination of travel behavior (Mohd et al., 2019). In order to meet Malaysia's expanding economic and demographic needs, transportation infrastructure has rapidly increased during the past few decades (Farhana et al., 2022). There were numerous kinds of transportation available, as well as the services were improved, as necessary. Making amendments and lines were also occasionally established. Most people's connectivity is improved as a result (Farhana et al., 2022). Elderly travelers have significantly increased, making up the fastest-growing demographic among those who drive (Mohd et al., 2019). Therefore, due to their reliance on private vehicles and reduced use of public transportation, the elderly's travel habits are not feasible (Liu et al., 2017).

From the report by Coughlin (2001), mobility is one's link to society requires the ability to move from place to place whenever and however one pleases. It has been said that transportation serves as the "bond" that binds all the activities that make up our daily lives. To fully participate in daily life, one must have immediate access to relatives, friends, social events, health care, and goods and services. Inability to move about can

prevent seniors from engaging in social activities, which can lead to poor spirits, sadness, and loneliness (Wong et al., 2018). Transit transfers have significantly become the norm, especially for regular commuters who are active (Farhana et al., 2022).

Farhana (2022) mentioned that a single trip can be made using numerous types of transportation, including such walk, biking, driving, transit systems, taxis, and ridesharing, opening up access to more places and helping to meet the rising demand for travel in a nation (Farhana et al., 2022). Elderly may find it challenging to use the services because they have poor physiologic performance, bad health, a high prevalence of morbidity, and lack familiarity with the wide transportation network because they travel less after retirement (Solecka et al., 2020). As for today, a lot of researchers are trying to figure out and tackle the problem of transit accessibility including all age categories. However, there are not much research that have looked at the accessibility and choice of transportation for the elderly (Fatima, Moridpour, & Saghapour, 2020)

There are times when public transportation is difficult for some commuter groups, especially the elderly (Shrestha et al., 2017). The effectiveness differs from person to person (Farhana et al., 2022). Public transportation in Klang Valley includes multiple choices for the elderly such as Mass Rapid Transit (MRT) service, Light Rapid Transit (LRT) service, Monorail service, Commuter rail service, and Bus Rapid Transit (BRT) service (Brohier, 2017). However, nowadays the elderly may find it harder to travel by public transport because of technology. For instance, the implementation of RapidKL Touch N Go is a problem, these younger generations appear to find the RapidKL Touch N Go bus services to be simple to use, but elderly may find it more challenging due to their limited technological knowledge and expertise (Azira et al., n.d.).

On the other hand, if the elderly were to transport with private transport like driving themselves, it could be a problem for the elderly. As nowadays highways are getting more crowded because of the approximately 1,000 new cars that are registered every day in Kuala Lumpur alone (Aw, 2016). According to a report by Brohier (2017), there is a 34% increase in traffic congestion in the capital of Malaysia. Malaysians have moaned for so long about the terrible traffic that it has taken over their entire day

(Brohier, The Best Public Transport To Get Around In The Klang Valley, 2017). The good news is that in the last few years, there has been seen an improvement to key tracks and connections as new regulations for ride-sharing services are passed. As for another type of private transportation modes for elderly is ridesharing or taxis (Farhana et al., 2022). The available ridesharing or taxis method now in Malaysia are from application such as Grab, GoCar, and MakCik (Savitha, 2021).

1.2 Problem Statement

Nowadays elderly has been a new topic in Malaysia as the population for elderly are increasing each year (Tobi et al., 2017). In Malaysia, the population has risen until the amount of 32.7 million in 2021 (DOSM, 2021). The Klang Valley, which lies in the middle of Peninsular Malaysia and includes the Federal Territory of Kuala Lumpur, it also includes Selangor district which are Gombak, Hulu Langat, Klang, and Petaling. From the Kuala Lumpur district, it has an approximately total population of 1.75 million in 2021 (DOSM, 2021). As for the Selangor districts, Gombak, it has an approximately a number of 6.56 million in 2021 (DOSM, Selangor, 2021). However, there is limited research studies on the preference transportation mode for the elderly in Klang Valley. Hence, the studies on the preference transportation mode for elderly is very valuable (Fatima et al., 2020).

The problem faced for the elderly is that they have difficulty of the to move around with private transportation as some of them unable to drive (Bruno Aguiar, 2016). With ageing, the elderly will lose physical and cognitive abilities and this limitation associated to driving will allow them to drive fewer miles, lower speeds and this predicts problems in traffic jam and pollution (Bruno Aguiar, 2016). That is why public transportation would play an important role for the elderly. This is because elderly who has access to public transportation can take advantage of products, services, job opportunities, and other activities (Shrestha et al., 2017). Since today's elderly are more active than previous elderly of a similar age in the past, public transportation will be

essential to helping them retain their active lifestyle even if they lose their ability to drive (Shrestha et al., 2017). But there has not been much research on the accessibility and options for transportation for the elderly (Fatima, Moridpour, & Saghapour, 2020). Therefore, it is a necessary for this research to find out the elderly's preferred transportation modes for a better understanding on them.

Follow by the transportation mode is based on the trips that elderly take every time. Location, education level, ownership of a private vehicle, state of health, and exercise participation were factors statistically substantially affecting the frequency of trips made by the elderly (Mohd & Sharif, 2020). Understanding elderly leisure events and the travel required for these activities is necessary to plan the transportation requirements for the ageing population in the future (Mohd, Latiff, & Senadjki, 2019). For example, Jaul and Barron (2017) mentioned that the state of health for each different stage of elderly will have different health conditions. The "early elderly" are healthy, active individuals in their 60s or early 70s. Individuals in their 70s or 80s who have serious diseases and are slowing it down with some inconvenient symptoms are considered to be "late elderly." (Jaul & Barron, 2017). Continuously, one rash assumption is that elderly have more free time than younger people and may spend more time engaging in social activities. However, elderly travel less than younger people when it comes of trips a day distance travelled due to ageing and declining mobility (Mohd, Latiff, & Senadjki, 2019). Hence, it is necessary for this research to find out what factors affects the elderly to choose between public and private transportation.

Furthermore, despite all the efforts to build sustainable cities, the ability of cities to be age-friendly cities has seldom been assessed. As a result, we must first investigate and comprehend the travel preferences and behavior of the elderly for researchers to draw conclusions and suggest appropriate policies to address the travel needs of the elderly population (Mohd, Latiff, & Senadjki, 2019). The elderly's travel patterns are unstable as a result of their dependence on private vehicles and decreased use of public transportation (Mohd, Latiff, & Senadjki, 2019). Therefore, research on travel and life

quality is crucial particularly in the case of geriatric mobility, so that appropriate responses and regulations can be implemented (Mohd, Latiff, & Senadjki, 2019).

1.3 Research Questions

The research question is design based on the research problem statement.

Research Question 1 (RQ1): What is the preferred transportation mode among elderly in Klang Valley?

Research Question 2 (RQ2): What are the factors affecting the elderly choice in the transportation mode?

1.4 Research Objectives

The research is design to accomplish the following specific objectives.

Research Objective 1 (RO1): To investigate the preferred transportation mode among elderly in Klang Valley.

Research Objective 2 (RO2): To determine the factors affecting the elderly choice in the transportation mode.

1.5 Significance of study

This study will examine the importance of transportation mode for the elderly in Klang Valley. There are a few parties that will benefited by this study which is the youngsters, government, businessman, and people living in Klang Valley. Firstly, the youngsters may be able to get a better lifestyle in the near future when they grow into old age. The

youngsters may also understand the society in Klang Valley which we live in, and it also warns us about specific procedures and potential issues that we may experience if we do not change the current situation faced by the elderly.

On the other hand, the government and businessman would get the attention on the purpose of investing more for which transportation mode that the elderlies preferred, so that not just the safety and lifestyle of the elderlies right now could be improved but also to the people in the future. This is because this research would know which transportation mode elderly prefers and identify possible factors affecting elderly to choose between public transportation or driving private car in Klang Valley. In collecting statistics in providing a clearer vision of the most preferred transportation mode among elderly and the factors affecting the elderly to choose between private and public transportation in the location of Klang Valley.

1.6 Chapter Layout

Chapter 1 – Introduction

This chapter is a brief introduction on the research subject overview of research title A study on preferred transportation mode among elderly in Klang Valley, based on the problem statement, research question, research objectives, chapter layout, and significance of this study.

Chapter 2 – Literature Review

The chapter will employ pre-existing information on the preferred transportation mode among elderly in Klang Valley that was gleaned from articles and journals produced by other academics as a basis for its recommendations and realistic outlook.

Chapter 3 – Research Methodology

The description of the techniques used for data collection is illustrated in a structural way to explain the research methodology used throughout the study. An illustration of how to gather high-quality data by focusing on a particular responder group and employing research techniques such as questionnaire design, data collection methods, and data analysis. The research method that using for this study is by distributing the questionnaire in Google Form. There will be 100 respondents collected from the elderly that is aged 65 and above, the questionnaire will be distributed to the elderly that lives in Klang Valley.

Chapter 4 – Result and Discussion

The chapter uses Statistically Package for Social Science (SPSS) software to determine the outcome, an analysis of the data collected from the distributed questionnaire survey was proposed. The analysis that will be used for this study is the descriptive analysis.

Chapter 5 – Conclusion and Recommendation

Based on the findings, a summary was drawn of the last chapter of this study. For the interests of future study, recommendations such as a potential remedy and a limitation are offered.

1.7 Conclusion

Chapter 1 provide a broad outline of the research intention on the title and introduction on the research background, problem statement, research question and objectives, significance of this study and chapter layout in analyzing the preferred transportation mode among elderly in Klang Valley and the reason to the value of this study. Chapter 2 is conducting research by collecting online resources from internet such as article and journals in providing a deeper understanding on characteristics of the elderly,

transportation mode used by elderly in Klang Valley and factors that affects the elderly to choose between public and private transportation.

CHAPTER 2: LITERATURE REVIEWS

2.0 Introduction

This chapter provides reviews literature for a study on preferred transportation mode among elderly in Klang Valley, Malaysia. The chapter gave a brief explanation of transportation mode and elderly. The continuous section describes the factors affecting the elderly choice in the transportation mode such as public transportation, private transportation, health condition, and…

2.1 Elderly

In Malaysia, the term "elderly society" refers to individuals over 60 with an increase in physical and mental decline. The aforementioned alteration is dependent on consumption, environment, and genesis (Champahom et al., 2020). Old folks, elderly, and senior citizen because it has different connotations in different countries, the line dividing middle age from old age cannot be precisely defined (Pereira, 2010). Elderly is defined as those who are 65 years of age or older in western nations; although this age criterion is arbitrary, it is widely accepted. The senior population over 60 is considered by the United Nations and as well as in Malaysia (Pereira, 2010).

According to the United Nations, Malaysia's population will reach 33.2 million in 2022, with an expected annual growth rate of 1.2% from 2020 to 2025. (UN) (Murugiah, 2022). The population of Malaysia increased from 27.5 million in 2010 to 32.7 million in 2021 (Murugiah, 2022). The population density in Malaysia varies substantially. From the Department of Statistics Malaysia (DOSM), they stated that Malaysia's population density is 99 people per square kilometre on average. With 7,188 people per square kilometre, W.P. Kuala Lumpur had the highest population density, followed by

W.P. Putrajaya (2,354 people) and Pulau Pinang (1,691 people). With 23 people per square kilometre, Sarawak has the lowest population density, followed by Pahang (47 people) and Sabah (52 people). From the statistic report by DOSM (2021) on the elderly population, 60 years and above in Malaysia from 2020 to 2021 has an increment of 10.7% to 11.2% (DOSM, 2021).

Figure 1: The estimated elderly population older than 60 years in Malaysia from 1970 to 2040.

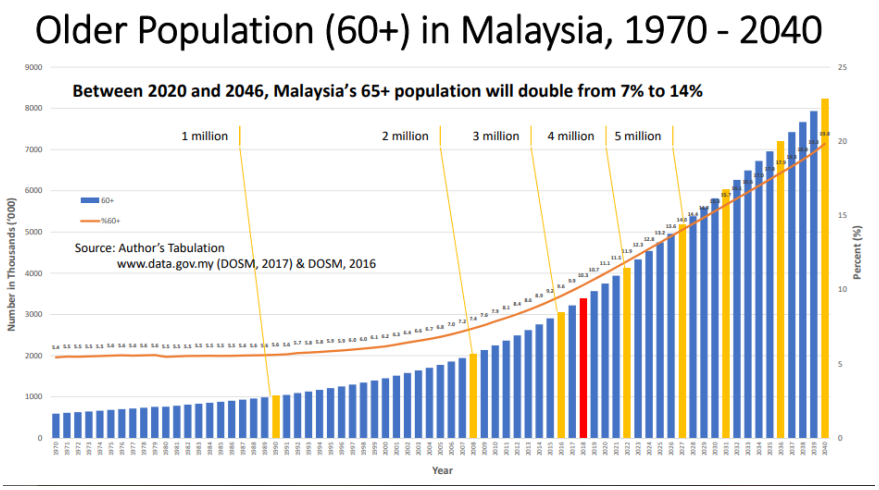


Figure 2. 1: The estimated elderly population older than 60 years in Malaysia from 1970 to 2040. Credit to https://www.un.org/development/desa/pd/sites/www.un.org.development.desa.pd/files/unpd_egm_201902_s3_tengkuaizanhamid.pdf.

From *figure 2.1* above, it is shown that the elderly population older than 60 years in Malaysia from 1970 to 2040. It is obvious that the population growth for 60 years and above will has an increment every year in Malaysia. Malaysia's elderly population is projected to increase by a multiplier of four from 7% in 2020 to 15% in 2040 (Safian et al., 2021). Elderly individuals have been grouped together in the majority of studies done so far (Sang, Jae, Jeong, Seung, & Jung, 2018). That is one of the reason policymakers and academics have begun to pay more attention to the issues that the elderly experience with daily mobility as the social assistance system has advanced (Wu et al., 2020).

2.1.1 Characteristic of Elderly

Figure 2: The life expectancy at Birth and at 60 years by Ethnicity, Malaysia, 1991-2015

Life Expectancy at Birth and at 60 Years by Ethnicity, Malaysia, 1991 - 2015

Life Expectancy	1991		2000		2010		2015 (Estimated)	
	Male	Female	Male	Female	Male	Female	Male	Female
At birth								
Total	69.2	73.4	70.0	74.7	71.9	76.6	72.5	77.4
Malay*	68.8	71.9	69.0	73.3	70.7	75.4	71.2	76.1
Chinese	70.7	76.4	72.4	77.6	74.4	79.1	75.1	80.1
Indian	64.2	71.4	65.7	73.5	67.6	75.7	67.7	75.8
At 60 years								
Total	16.1	18.1	16.7	19.0	17.9	20.1	18.4	20.9
Malay*	15.7	16.9	15.9	17.8	17.1	19.4	17.6	20.0
Chinese	16.8	20.2	18.1	21.1	19.1	21.7	19.9	22.8
Indian	14.2	17.6	15.2	19.1	16.9	19.8	17.5	20.1

* Including other Bumiputera
Source: Department of Statistics (1997; 2002; 2015)

Figure 2. 2: The life expectancy at Birth and at 60 years by Ethnicity, Malaysia, 1991-2015

From the figure 2.2 it can be defined that people are living longer, and the average life expectancy in Malaysia is comparable to that in other upper middle-income nations. Aizan Hamid (2019) states that the possibility that people would live into elderly has increased as a result of economic expansion and public health developments. Depending on their gender or race, an older individual 60 years of age in 2015 can safely anticipate living for another 17 to 23 years (Aizan Hamid, 2019).

Being able to drive safely might become challenging as the load of chronic medical illnesses and functional limitations on older individuals grows (Ang et al., 2019). A functional limitation, according to this notion, is a decline in mental, behavioural, or intellectual capacity. As a result, it is a personal trait (Sundling, 2016). The physical and psychological changes that are typically brought on by ageing provide the elderly with a variety of challenges (Chern Ang & Khalid, 2021). Elderly people frequently report having visual issues (68%), chewing meals more difficult (48%) and hearing issues (16%) (Rosdina et al., 2010). Hearing impairment has been linked to cardiovascular disease,

diabetes mellitus, diabetes risk factors, and hypercholesterolemia (Rosdina et al., 2010). Brundell (2014) mentioned that restricted mobility is the most typical functional limitation among early retirees, following by hearing problems (Brundell, 2014). They also frequently experience "Empty Nest" syndrome, which is a feeling of loneliness and grief caused by being separated from children, especially if they live in remote locations (Nor, 2019). The late elderly, those who are above 75 years old, frequently have far more than a functional restriction (Sundling, 2016). However, the majority of those with functional restrictions commute on public transportation without any issues (Sundling, 2016).

2.1.2 Elderly's Income Level

The majority of elderly with high levels of education or income were frequently car owners; elderly with high household incomes tend to use cars for transportation; elderly with low household incomes or who are unemployed are more likely to walk and use bicycles; elderly who are single are more likely to use public transportation (Liu et al., 2017). The frequency of travel is influenced by having a driver's license (Kim, 2011). Higher educated seniors travel more frequently and are more likely to take public transportatio (Böcker et al., 2017) n. Elderly households can anticipate receiving less money from employment-related sources after retirement. In other words, as people age, they become less reliant on income and receive more retirement benefits (Quinn, 1985).

The Employees Provident Fund (EPF) is the most significant non-family source of support for the elderly in Malaysia (Caraher, n.d.).Yin-Fah (2010) mentioned that EPF was introduced in 1951 as a required retirement savings program that permits early withdrawals for housing, medical expenses, and educational expenses. It is a trust fund with a relatively straightforward concept that is a defined contribution plan supported by contributions from both employers and workers (Yin-Fah et al., 2010). From EPF states that all of the savings that have accumulated in "Akaun 55" and "Akaun Emas" will be combined for

withdrawal at the age of 60. To pay for the retirement, elderly can choose to take a lump payment or a portion of the account at any time (KWSP, 2020). However, it was discovered that the EPF's current arrangements were not sufficient to cover elderly demands. As a result, in Malaysia today, the family has been the primary supplier of welfare, both financially and in terms of providing social support to the elderly (Caraher, 2000). This is corroborated by Masud et al. (2006), who discovered that adult children's financial support was the most typical source of income for elderly Malaysians.

Another source can be financial assistance from the government. For instance, on the newest program for Budget2022 (2022) by the government, the government are giving RM500 every month for the elderly. However, there are some terms and conditions applied to it such as they have to be Malaysian citizens; aged 60 and above; and income should be less than RM1,169 (Budget2022, 2022).

2.2 Transportation

One of the main metrics used to assess a person's quality of life, particularly for urban area, is the access to transportation (Albacete et al., 2017). Many transportation-related factors are particularly important since they can directly affect how we live in an effort to improve our quality of life (Ghapar Othman & Hj Ali, 2020). The country's mobility environment has transformed as a result of Malaysia's rapid expansion of its transportation infrastructure (Cuomo, 2017).

Chiu Chuen (2014) mentioned that the road travel is Malaysia's main means of transportation, which is largely impacted by the country's topographical features. The South China Sea divides the two geographical regions that make up Malaysia. With a total land area of almost 330,000 square kilometres, the country's road network is a major asset and a driving force behind its economic and social development(Chiu Chuen et al., 2014). Dependence on cars has always been seen as a possible threat to

Malaysia's urban areas because it increases traffic congestion, raises the accident rate, uses urban land inefficiently, pollutes the environment, has negative economic effects, causes urban sprawl, and lowers the general standard of public transportation (Ghapar Othman & Hj Ali, 2020). While many would welcome it, elderly people might find it challenging to stay current with their mobility needs and stay active (Farhana et al., 2022). There are two types of transportation mode mentioned in this study as below that is private transportation and public transportation.

2.2.1 Private Transportation

In order to meet their daily transportation demands, many Malaysians rely on private car transportation, which eventually results in an excess of vehicles entering metropolitan areas (Ghapar Othman & Hj Ali, 2020). Based on Ang (2019) it mentioned that for many elderlies, being able to drive for longer periods of time safely is essential. In wealthier countries, there is increasing evidence of older drivers engaging in self-regulatory behavior, but few research are carried out in poorer nations (Ang et al., 2019). According to earlier research, the key factor encouraging elderly drivers to stay on the road and risk a deadly accident is the growth in longevity (Ang et al., 2017).

Eric (2017) mentioned that private transfers do not include sharing a car with other passengers like public transfers do. You only share it with the driver and your friends, family, and coworkers (Eric, 2017). The private transportation also includes taxis or ride-hailing services like GoCar and Grab may be more appropriate based on the availability, price, and trip time (Fazzillah et al., 2022). Grab (Grab, 2021) and MakCik Travels (Travels, 2021) is a ride-hailing services that provides private drivers for its customers, there is even promotion or program that would cooperate with the government. For instance, starting on June 12, citizens who are Grab users and are 60 years of age or older will be eligible for promotions offering up to RM8 off 4 trips to any of the vaccination centers (Ang, 2021).

2.2.2 Public Transportation

Prior research on the needs of older passengers on public transportation focused on groups with specific features (Shrestha et al., 2017). Numerous means of public transportation are available in the Klang Valley, including rail service, and bus service. The rail service includes LRT (Light Rail Transit), KTM commuter, MRT (MASS rapid transit) and monorail. The most significant mode of public transportation in Klang Valley is the bus. Out of all modes of public transportation, buses carry the most people and complete about 600,000 trips daily (Chiu Chuen et al., 2014). For example, by expanding the currently insufficient rail network infrastructure, the construction of MRT is anticipated to reduce the worsening traffic congestion in the Klang Valley (Najmuddin, 2016). According to estimates, a single MRT train with four carriages can accommodate 1,200 passengers, which is equivalent to the usual number of passengers transported by 700 automobiles (Chiu Chuen et al., 2014).

Hounsell (2016) mentioned that elderly individuals who have access to public transportation can take advantage of goods, services, employment opportunities, and other activities. Therefore, public transportation is crucial to older people's quality of life, sense of independence, and sense of freedom (Hounsell et al., 2016). The primary explanation of the low public transportation use and excessive reliance on private vehicles is that most travelers choose their cars because they are more convenient and cost-effective than an unorganized public transportation system (Borhan et al., 2019). Due to the fact that they travel certain routes at particular times during the day, each of these modes of transportation has its unique schedule (Eric, 2017). This kind of transportation is typically operated by the government, and its only benefit is that everyone who uses it pays the same price (Shrestha et al., 2017). The government also provides discounts to the elderly going for public transportation such as the concession card discount for RapidKL (MyGovernment, 2022). The Senior Citizen Concession Card is a personalized smartcard with saved value that may

be used for travel by the elderly aged 60 and above on RapidKL buses, LRT, Monorail, MRT, and MRT feeder buses. Those who have a concession card can travel the LRT, Monorail, BRT, MRT, RapidKL, and MRT feeder buses for half off the cost of an adult fare (myrapid, 2022).

In the Klang Valley, numerous roadway networks have been built at excessive bidding costs or through secret auctions. According to anyone who is knowledgeable about contemporary urban transportation design, highway networks should not be very vast in major large urban regions (Chee, 2022). Chee (2022) also mentioned that these not only occupy a sizable amount of urban area, inadvertently encourage vehicle owners to drive, and negatively impact the aesthetics of the city, but they also increase noise and air pollution, which are sensitive issues for discussion and sustainable environmental preservation. This could be a problem for elderly as well as they are more sensitive to noise and air pollution could increase damage on the health of elderly (Omaha, 2019).

2.3 Klang Valley Region

As a result of suggestions made by a regional planning study conducted in the area, the Klang Valley was created in 1973 (Shankland, 1973). The Federal Territory of Kuala Lumpur, Gombak, Petaling, Klang, and Hulu Langat are the five areas that make up this region. The Klang Valley is situated roughly in the middle of Peninsular Malaysia's West Coast and has a total area of around 2,832 square kilometers (Fazzillah et al., 2022).

Figure 3: The Klang Valley's location map and its cities.

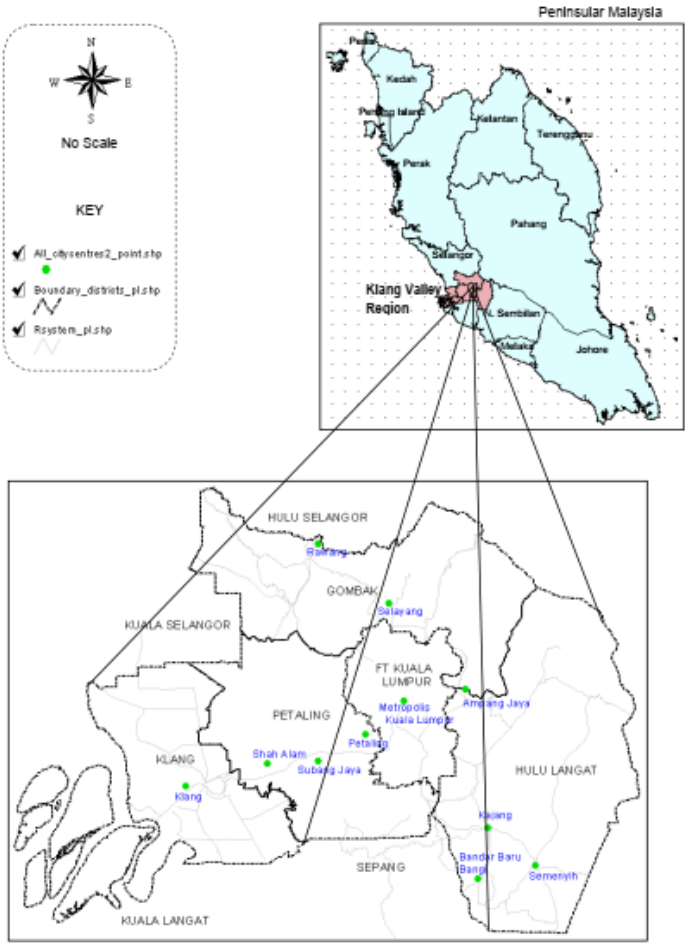


Figure 2. 3: The Klang Valley's location map and its cities. Source from (Fadzil Abdul Rashid & Ab Ghani, 2009)

2.4 Factors affecting the elderly choice in transportation mode

Factors influencing an elderly person's chosen mode of transportation refers to the method of transportation that an elderly person over the age of 60 chooses to use. In most cases, the economics, society, and ease of access to the locations where various activities might be carried out were the factors influencing the choice of transportation modes. The study evaluated elements influencing the choice of transportation modes

for this section to serve as guidance for creating questionnaires for data collecting and analysis.

2.4.1 Cost Savings

In particular, past studies have shown that, for elderly, travel costs are frequently more significant than travel time (Su & Bell, 2009). The first is how people view and feel about money, how much time is worth, and how they travel. Malaysians are typically more cost sensitive than they are time sensitive. Time is viewed culturally as a fluid variable, but costs are fixed and elastic from a Malaysian perspective (Fazzillah et al., 2022). The regularity of trips depends on a variety of factors, including having a driver's licence and having money to pay for them. The average trip distance for elderly people with low incomes and no driving privileges will presumably be less than for those with greater incomes (Christaens, 2009). As people age, travel expenses become more significant than travel time. Because older people typically have more time but less money, they tend to choose options which are less expensive but require longer travel times (Su F. , 2007). To be conclude, cost saving might be one of the factors affecting the elderly choice.

2.4.2 Convenient

Since more seniors than in previous generations have driving licenses as to it is more convenient, many older individuals prefer driving as a form of transportation (Alsnih & Hensher, 2003). If an elderly person is unable to drive, their immediate family may also be impacted by the requirement to offer transportation assistance (Currie & Delbosc, 2010). Contrarily, choosing private transportation over public transportation has a significant negative impact on traffic, road safety, and the environment (Dodson, Buchanan, Gleeson, & Sipe, 2006). In addition, older drivers over 75 experience

navigational difficulties, especially while travelling through unknown places (Rosenbloom, 2011). Transport policy should be considering the usage of other modes of transportation, such as public and active transportation, in this automobile-dependent period when travelling without a car can frequently be challenging or inconvenient, especially for disadvantaged populations, such as the elderly (Lin & Cui, 2021). Therefore, convenient is one of the factors that can greatly affect plays an important role in affecting the elderly choice in transportation mode.

2.4.3 Trip Time

One of the important factors in trip behavior is the trip time. The broadening is lowered as a result of the rise in overall journey times. In the past, time-based accessibility strategies have been taken into consideration on numerous occasions. According to the research of Fatima (2021), when considering time components like walking, waiting, and time spent in a car, this idea has, however, hardly ever been explored for the elderly. Research on the accessibility of older public transportation and walking is scarce largely because there is a lack of accurate elderly travel data (Fatima, 2021). There were discouraged from taking public transportation by the prolonged travel times of the buses. The tension brought on by the lengthy commute led some users to change to driving private vehicles in order to lessen the additional stress associated with commuting (Borhan et al., 2019). This demonstrates how trip length can have a significant impact on people's transportation decisions, so it is important to determine how it will affect elderly choices as well.

2.4.4 Lifestyle

Age, gender, income, possession of a driver's license, household size, and structure, and lifestyle factors like working or not, housing preferences, and socio-demographic traits like age, gender, and age at retirement, can all have a

big impact on an older person's demand for transportation (Hildebrand, 2003). Mobility and life quality and pleasure in later age are intimately related (Aguiar & Macário, 2017). According to Siren, A and Haustein (2013) stated that members of an "aging society" in the future have experienced a culture with modern mobility, marked by car transportation and leisurely long-distance travel in many industrialized economies. In comparison to past elder generations, they had gained first from healthcare and education systems that make sure they are healthier and enjoy active lives with a variety of leisure activities. Today's older persons may be counted on to stay independent, active, and frequently use transportation networks until they reach 80 years old (Siiren & Haustein, 2013).

2.5 Conceptual Framework

Figure 4: Proposed conceptual Framework

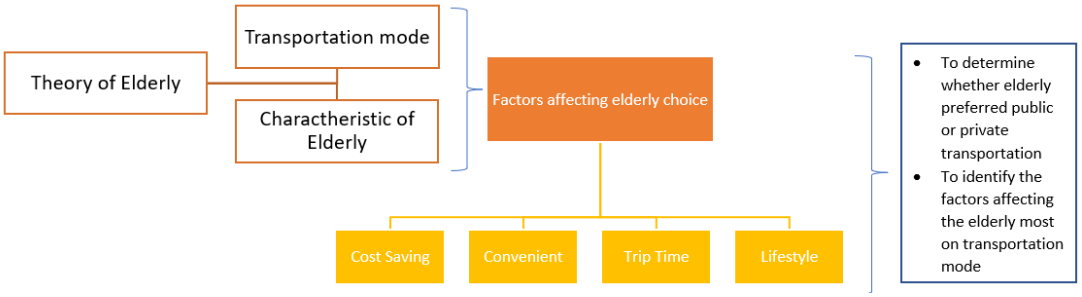


Figure 2. 4: Proposed conceptual Framework

According to the figure 2.4 above, the proposed conceptual framework is to show the possible outcome of this study. According to the previous studies (Mohd et al., 2019), the research has determined the travel behaviors of the people in George Town, Penang but there is not specific research on the elderly and not done in Klang Valley. As well as there is also research done in Beijing, China (Liu et al., 2017), for the elderly but not for the factors that will affect their choice. To conclude, there has not been research

done on the preferred transportation mode for elderly and the factors affecting their choice in Klang Valley. For this study, we hope to identify not just the preferred transportation mode but also the factors influencing the elderly to choose between public and private transportation.

2.6 Conclusion

In conclusion, chapter 2 is defined as elderly, characteristics of elderly, transportation that are split into two categories which is private transportation and public transportation. It also defines the factors affecting the elderly choice in transportation mode that includes individual attributes, the sources of income, socio-demographic, aging activities, psychological health condition and physiological health problem.

CHAPTER 3: METHODOLOGY

3.0 Introduction

Chapter 3 will cover the research method used in this study. In-depth explanations of the data collection techniques are provided. As a result, this chapter will cover the processes of research design, sampling design, data collection methods, research instruments, construct measurement, data processing, and data analysis tools. In chapter 4, using SPSS, the data analysis and interpretation will be produced.

The process through which researchers must perform their research is known as research methodology. It demonstrates the process by which these researchers define their issue and aim and then provide their findings based on the information gathered over the study period. The chapter on methodology and design also demonstrates how the study's goal will be met by the study result at the conclusion (Sileyew, 2019).

In this study, quantitative research will be used. In quantitative research, data is presented visually through charts and numbers. It is employed to confirm or test presumptions and hypotheses. This research approach is employed to gather data that can be applied to a variety of topics (Streefkerk, 2019). In order to determine what the public's preferred solutions are depending on the study topic, it will be useful to collect public opinions using data analysis and convert them to graphs, charts, and tables. Questionnaire survey is often used to verify or test a theory.

3.1 Research Design

The structure of an ongoing research might be thought of as the "Adhesive" that ties its various components together. It is a general outline for the intended study endeavor (Akhtar, 2016). A very good research design ensures that the procedures follow

the study objectives and that it will apply the right data analysis strategy (McCombes, 2021). A successful study often reduces data bias and fosters confidence in the accuracy of the information gathered.

Since this study is employing a quantitative approach, it would be simple to design a questionnaire with biased questions. The creation of a questionnaire is a crucial step in avoiding this. For this study topic, the research structure serves as a guide. Research on the plan for data collection, measurement, and analysis is done in research design (Akhtar, 2016). From the trend of elderly's factors, it can show how elderly think and it definitely will affect the preferred transportation mode among elderly in Klang Valley. After all, the elderly's population are increasing in Klang Valley.

3.2 Data Collection Methods

Data collection is the process of acquiring, measuring, and analyzing accurate data using a variety of suitable techniques in order to find answers to research questions, assess outcomes, and predict probabilities and trends (Simplilearn, 2022). Primary data gathering and Secondary data collection are the two basic methods used in data collection. Both techniques are used to gather information from many sources, using the necessary information to produce a summary or indication of the research. As many corporations use it to make wise business decisions, it is a crucial method in our society. In this research, it is to find out the trend of a study on the preferred transportation mode among elderly in Klang Valley.

3.2.1 Primary Data

Primary data is more accurate and reliable because it was gathered from of the primary source of the information. The main data sources come from both qualitative and quantitative methods, such as casual conversations, interviews, surveys, and observation (Surbhi, 2020). This technique obtains first-hand or direct data directly from target groups, and it is regarded as an expensive or

time-consuming form of data gathering. However, if comparing to that Secondary Data Collection method, it is the more involved and real-time data (Wagh, 2022). In order to gather data and information for this study, questionnaires will be used. Respondents will receive the questionnaire via the internet. This method's benefits included being simple, quick to complete, less cost, offering a selection of programs and providers for different needs, and allowing for immediate analysis of the results (Curtis & Allen, 2018).

3.2.2 Secondary Data

Secondary data is information that was gathered by the other researchers who most likely had different study objectives from the primary data, which is information that is gathered by a researcher themselves to accomplish a certain research purpose (Crossman, 2019). The secondary data sources were taken from OSH-related literature, while the remaining data came from manuals, reports, and other management documents that were part of the desk assessment for the companies. On the manufacturing industry sectors, reputable journals, books, various articles, conferences, publications, newsletters, papers, internet, and other sources were taken into consideration (Sileyew, 2019). For the majority of people, the amount of knowledge from others is more than sufficient for the research they wished to do. The drawback of the secondary data collection approach is that a researcher might need to conduct further fact-checking on the information obtained from the available resources. Due to the fact that the materials are not directly raw data and have been produced by someone else, it is impossible to rule out the possibility that they contain information that is biased or even not true or trustworthy (Cheng & Phillips, 2014).

3.3 Sampling Design

3.3.1 Target Population

A target population is a set of individuals who share a characteristic and whose behavior or preferences a researcher would like to examine (Gregory, Stevens, & Fraser, 2017). The targeted respondents in some research may be the entire population, however in other studies they may be a more specific group, such as teenagers, young children, or drug addicts (McLeod, 2019). In this research, the targeted respondents are elderly from the age 60 and above.

3.3.2 Sampling Frame

Figure 5: Sampling Frame.

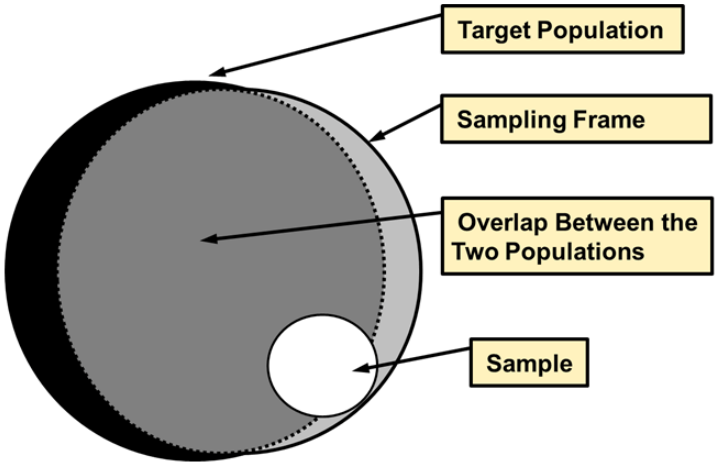


Figure 3.3.1: Sampling Frame. Credit to "https://www.theanalysisfactor.com/target-population-sampling-frame/"

A sampling frame is a group of well-chosen samples taken from a target population (McCombes, Sampling Methods | Types, Techniques & Examples,

2019). Without a sampling frame, there would be a lot more extra targeted groups to eliminate. This could reduce the intended sample while maintaining the sample's validity. Participants who are currently staying in Klang Valley make up the study's representative sample and selection location. Participants range in age 60 years and above.

3.3.3 Sampling Elements

The analysis of the study that is measured within the sample frame is known as the sampling element (McCombes, Sampling Methods | Types, Techniques & Examples, 2019). Since Kuala Lumpur, the capital of Malaysia, is located within the Klang Valley and the majority of Malaysians choose to live and work there, the Klang Valley has a higher population than other states, which will aid this research's use of the quantitative research approach. In this study, elderly of the Klang Valley are categories into three groups who are above 60 years to 74 years old, 75 years old to 84 years old and 85 and above were included in the sampling elements.

3.3.4 Sampling Technique

The two fundamental sampling strategies are the probability sampling method and the non-probability sampling approach (Surbhi, Difference Between Probability and Non-Probability Sampling, 2022). A sampling method known as probability sampling gives every member of the population an equal chance of being chosen as a sample group. Non-probability sampling is a sampling technique when the identity of the person who will be chosen as a sample from the population is unknown (Surbhi, Difference Between Probability and Non-Probability Sampling, 2022). In this study, probability sampling is the method of choice. The major justification is that this method will produce objective results from respondents. Without identifying the set of respondents, the basic random sample approach used in probability sampling ensures that each

respondent has an equal chance. The demographic clustering used in the cluster sampling approach will be followed by a conclusion based on various categories using stratified random sampling (McCombes, 2019). For instance, the questionnaire is to be distributed to the people in Klang Valley by giving to friends and family.

3.3.5 Sampling Size

In statistical and market analysis, the term "sample size" is frequently used, and always turns up when polling a large number of respondents. The sampling size must always be considered; if it is too little, the respondent's perspective will not be fairly represented; if the sample is too large, the study will become time-consuming and complex (Oribhabor & Anyanwu, 2019). The general consensus is that a sampling size should be 100 (Memon, Ting, & Hwa, 2020). Sample size considerations may be impacted by constraints on money, time, resources, and other factors (Bartlett, et al., 2001). In this research, due to the limited time given to collecting data. The sample for this study was calculated using the 95% confidence level of Taro Yamane's formula (Yamane, 1973).

Figure 6: Taro Yamane Formula.

$$n = \frac{N}{1 + N(e)^2}$$

Figure 3.3.2:Taro Yamane Formula.

Where: n = necessary sample size, N =the population's size, while e = the allowed error (percentage) which is usually 0.10, 0.05 or 0.01.

N= 760,000 (estimation elderly in Klang Valley); e=0.10

n= $760{,}000/1+760{,}000(0.10)^2$

n= 100 (rounded)

The Yamane formula was used to compute the sample size, and the result was 99.9868 people in the sample. The sample size has to be 100 respondents by the researcher in order to get credible results.

3.4 Research Instrument

In general, questionnaires include open-ended, closed-ended, or a combination of question types. This makes it possible for researchers to gather data that suits their needs, both quantitatively and qualitatively. In comparison with other research techniques, such interview, the questionnaire adds structure to any study, where it may enhance the success of each inquiry and answer (Cleave, 2021). Therefore, questionnaire is being used as the research instrument in this study.

3.4.1 Design of Questionnaire

The questionnaire included three sections:

i. Section A: Demography Profile
ii. Section B: The factors affecting the elderly choice in transportation mode.

For the Section A is to collect the basic information from the respondent and it is to collect respondents to choose between different transportation mode available in Klang Valley. Lastly, for Section B is to collect the respondent's factors that affecting elderly the most when choosing transportation mode.

3.4.2 Pilot Test

In addition to the targeted at least 100 responses from respondents, a total of 30 pilot tests were also distributed to classmates who live in the Klang Valley area and have elderly relatives living with them in order to identify questionnaire

flaws and strengthen the questionnaire in order to collect data that is accurate, complete, reliable, relevant, and timely.

3.5 Construct Measurement

3.5.1 Scale of Measurement

A technique used to identify and group the variables and numbers is the scale of measurement. In particular, it is used to evaluate the degree of consistency, accuracy, and stability of the questionnaire's measurement items. Nominal, ordinal, interval, and ratio scale were the four different forms of scale measurements. The ratio scale, however, did not apply in this investigation.

3.5.2 Nominal scale

Figure 7: Example of Section A question 1 for nominal scale.

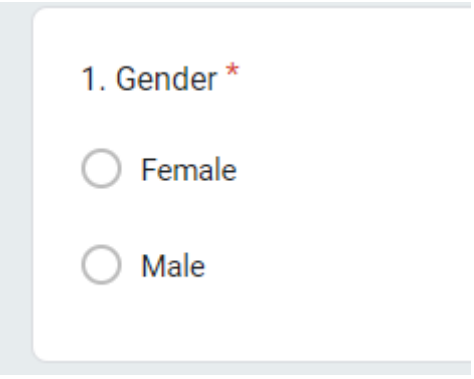


Figure 3.5. 1: Example of Section A question 1 for nominal scale.

A measurement in numbers and letters known as a nominal scale is used for labelling and classification. Information on variables that can be broken down into further than two categories is included in nominal data (Dalati, 2018). In the questionnaire of this study, the nominal scale applied in Section A. In the

questionnaire of this study, the nominal scale only applied to Section A for question 1, 3, 4, 5, 6, and 7.

3.5.3 Ordinal Scale

Figure 8: Example of Section A question 2 for ordinal scale.

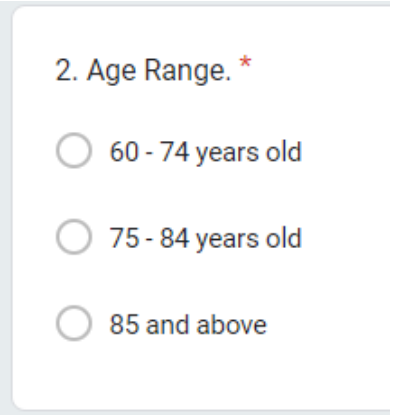


Figure 3.5. 2: Example of Section A question 2 for ordinal scale.

Ordinal scales are used to categorize items based on their degree, and they typically ask respondents to assess a certain brand. For instance, superb, good, fair, and poor (Dalati, 2018). In the questionnaire of this study, the nominal scale only applied to Section A. However, the question 2 in Section A are applied to ordinal scale.

3.5.4 Likert Scale

Figure 9: Example of Section B own vehicle transportation mode for Likert scale.

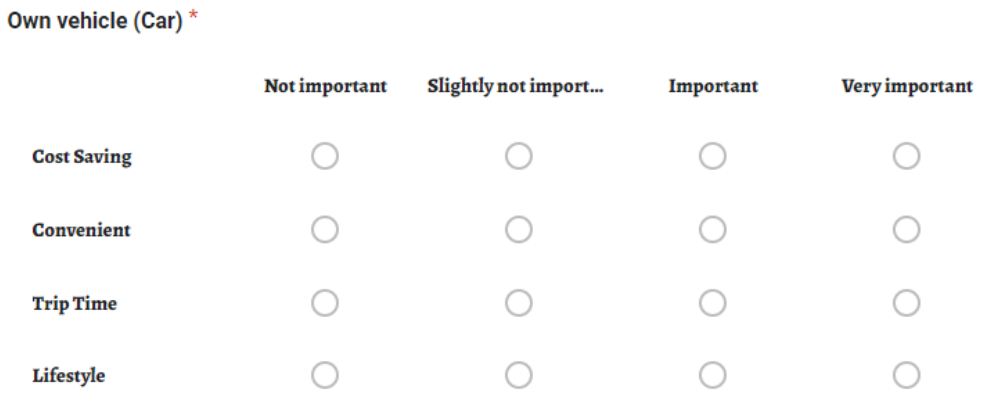


Figure 3.5.3: Example of Section B own vehicle transportation mode for Likert scale.

The basic Likert scale consists of a number of assertions provided for the actual or fictitious event being researched. On a metric scale, respondents are asked to indicate how much they agree or disagree with the provided statement or assertions, ranging strongly agree to strongly disagree. Here, all of the remarks taken together reflect a certain aspect of the perspective toward the subject, making them unavoidably related (Singh, 2006). The 4-point Likert scale are used in this design questionnaire, from the range of Not important to Very important.

3.6 Data Processing

For organizations to strengthen their corporate strategy and gain a competitive edge, data processing is crucial. If the data is displayed in an understandable manner, such as through statistics, charts, and text, then all employees inside the company can interpret and use the data (Guggal, 2022).

3.6.1 Data Checking

To begin with, validity and completeness criteria will be used to filter the data obtained from all questionnaires. Data must be collected with high data quality; respondents will be disregarded if questionnaires are not filled out completely or if it is clear from the questions that now the respondents is not a valid respondent. If there are more than 100 valid responses to the questionnaire, only the first 100 will be used for additional data processing to prevent bias.

3.6.2 Data Editing

Following the completion of the data checking phase, comes data editing. This does not imply that its data will be deliberately changed to produce the desired result for this study, but rather that the data set may be rearranged as needed to facilitate the following step. Therefore, before inputting the data into the SPSS software, researchers can update the data to correct the inaccuracy.

3.6.3 Data Coding

Data editing is followed by data coding and transcription. A common procedure in qualitative research is data coding, which is an analytical procedure that can help researchers dissect the data in a meaningful way. Additionally, data coding is a decision-making process, so we need to be aware of the choices we are disguising. This stage groups and categorizes all the valid data that has been gathered during a process to produce a conclusion depending on analytical requirements.

3.6.4 Data Transcribing

All of the gathered data will be coded before being input into a computer and entered into SPSS Statistics 28.0 for upcoming data analysis needs.

3.6.5 Data Cleaning

Data cleaning is the procedure of identifying errors and making modifications to account for missing data. Statistical Package for Social Sciences 28.0 (SPSS Statistics 28.0) will be used to thoroughly check the questionnaire and identify any out-of-range data.

3.7 Data Analysis

Data explanation to a story is a process of data analysis. Additionally, the data analysis method has the ability to break up a large amount of data into smaller parts. Furthermore, it is crucial to employ the right data analysis methods because they can guarantee that the results of the study will be understood correctly.

SPSS will be the programmed utilized in this study to analyze the data. The general public believes that SPSS software is more useful for statistical data than for qualitative data because around 85% of academic research include statistical data, even though no SPSS gives both data sets equal weight. Despite the fact that there are other software options on the market for evaluating quantitative data, SPSS is recommended. SPSS is user-friendly software that is simple to use, which helps with analysis even when the data set is large (Admin, 2020).

3.7.1 Descriptive Analysis

Descriptive analysis is a sort of data processing that aids in effectively explaining, presenting, or summarizing data points so that patterns that satisfy all of the needs of the data can emerge (Rawat, 2021). The benefit of employing descriptive analysis is that it helps exclude the study's acquired data that are of

less significance. This is so because the patterns in the data, rather than the outliers, are the emphasis of this descriptive study. Descriptive analysis can produce results that paint a clear picture of the respondents' opinions. It could be stated in a sentence based on the simple understanding chart by turning it into a pie chart. The message that the chart conveys offers a more comprehensive view of an incident, allowing it to gather data about relationships that naturally occur between people because it reflects actual behavior. Only frequencies and central tendency were measured using descriptive analysis in this study (Bush, 2020). Knowing the frequency of a particular reaction is done through frequency measurements. Additionally, measurements of central tendency typically include the mean, median, and mode, but this study will simply focus on the mean, mode, and median because it would be an excellent descriptive metric (Bush, 2020).

3.7.2 Reliability Test

The qualities of the measuring scales and the items that make up the scales are investigated using reliability analysis. The reliability analysis technique known as Cronbach's Alpha measures the consistency of information, attitudes, and other affective components. The reliability, consistency, and discriminating power increase as the Coefficient Alpha value increases (Taber, 2018).

Figure 10: Cronbach's Alpha Formula.

$$\alpha = \frac{N \cdot \bar{c}}{\bar{v} + (N-1) \cdot \bar{c}}$$

Figure 3.7. 1: Cronbach's Alpha Formula. Credit to https://www.statisticshowto.com/probability-and-statistics/statistics-definitions/cronbachs-alpha-spss/

Cronbach's alpha	Internal Consistency
α ≥ 0.9	Excellent
0.9 > α ≥ 0.8	Good

0.8 > α ≥ 0.7	Acceptable
0.7 > α ≥ 0.6	Questionable
0.6 > α ≥ 0.5	Poor
0.5 > α	Unacceptable

Table 1: Cronbach's alpha scale

Glen (2020)) mentioned that **α** is the Alpha; **N** is the number of items; $\bar{\mathbf{c}}$ is the average covariance among the items; $\bar{\mathbf{v}}$ is the average variance (Glen S. , 2020). A rate between 0 and 1 is used to represent alpha. The internal consistency of such data is stronger when the number is closer to 1; it is poorer when the number ratio is lower. Cronbach's alpha's internal consistency should generally be 0.7 or higher (Tavakol & Dennick, 2011). Any ratio below 0.7 should prompt caution when interpreting the results of the questionnaire.

3.8 Conclusion

The research methodology has been outlined, and every step has been completed using the quantitative method. The research design on data collection method for both primary and secondary data brings forward to sampling design and the help of research instrument, data processing, construct measurements, and data analysis method. The results will be generated by the next chapter by using SPSS as a tool to conduct data analysis.

CHAPTER 4: DATA ANALYSIS

4.0 Introduction

In this chapter, the data information collected from the questionnaire will be examined from the 100 respondents of Klang Valley. The accumulated data is examined, identified, and results are produced by using the SPSS software. The study's research data will be subjected to statistical analysis tests through the stages of descriptive analysis, scale measurement, and inferential analysis.

4.1 Descriptive analysis

Using descriptive analysis, the primary characteristics of the collected research data are presented. In this study, it reflects the characteristics of the respondents and the data. It would be helpful when analyzing the respondent's category from the questionnaire.

4.1.1 Respondent Demographic Profile

In order to assess the demographic research data, descriptive analysis will be used. The demographic research that will be analyzed inclusive of the category of gender, age, current staying at the area Klang Valley, source of income, owning of vehicle in Klang Valley, health condition they possess, and transportation mode elderly preferred.

Figure 11: The pie chart of Gender of Respondents

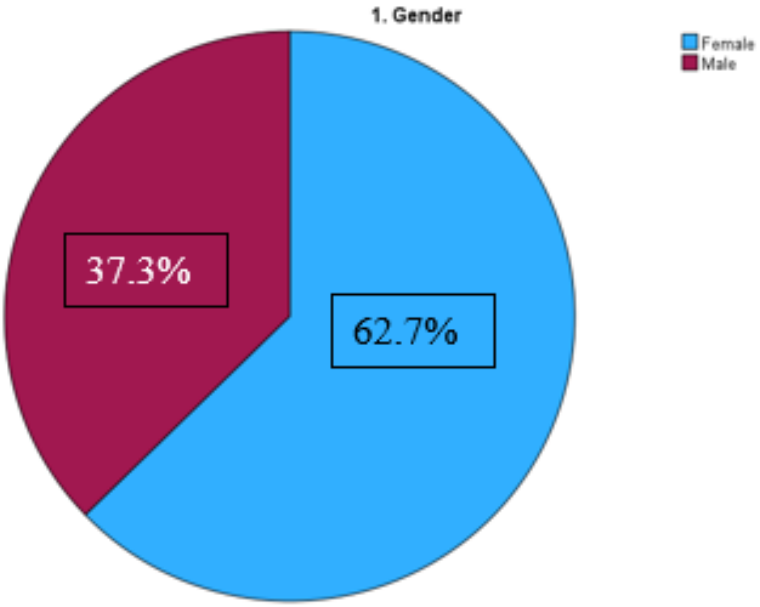


Figure 4.1.1: The pie chart of Gender of Respondents

Figure 4.1.1 shows the gender of the respondents contributed for the research study. The results suggest that out of 110 responders, 37.3% are male and 62.7% are female. The results suggest that there are more female than male that has participated in this survey.

Figure 12: The pie chart of Age Range of Respondents

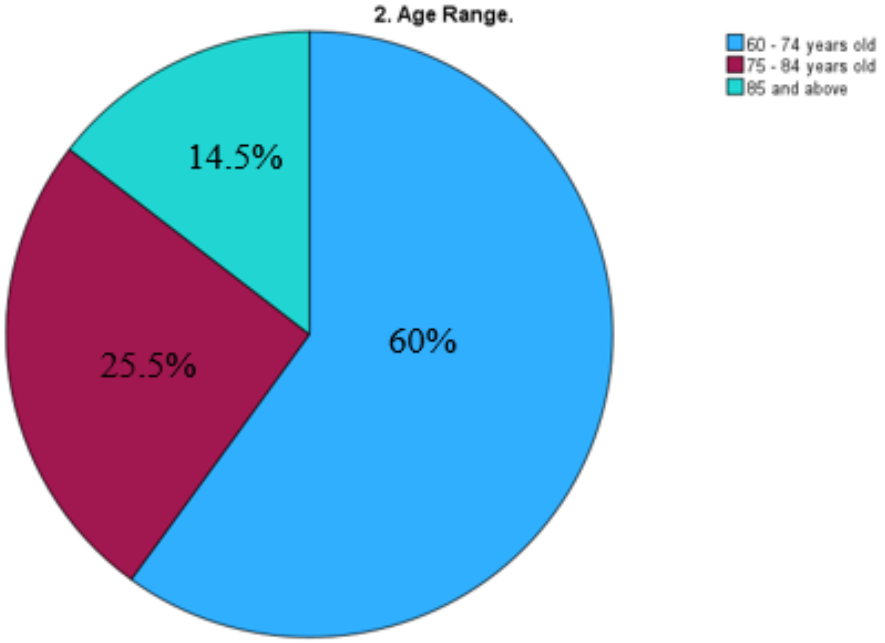


Figure 4.1.2: The pie chart of Age Range of Respondents

Figure 4.1.2 shows the age range groups of the respondents contributed to the questionnaire. The highest frequency group of the respondents are those aged 60 to 74, with 60% respondents, while placed at the second is 75 to 84, with 25.5% respondents. Lastly, the lowest frequency group is the age range 85 and above, with only 14.5% respondents.

Figure 13: The pie chart of the respondent currently staying in Klang Valley

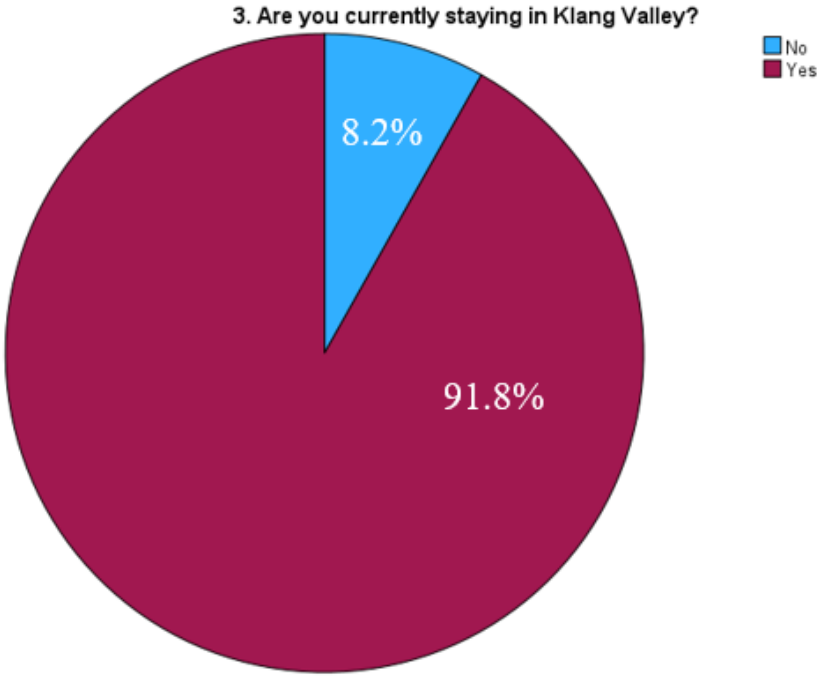


Figure 4.1.3: The pie chart of the respondent currently staying in Klang Valley

Figure 4.1.3 illustrate on the 110 respondent that are currently staying or not staying in Klang Valley. There are 91.8% which there are 101 respondents currently staying in Klang Valley whereas 8.2% that is 9 respondents do not stay at Klang Valley.

Figure 14: The pie chart of the source for income

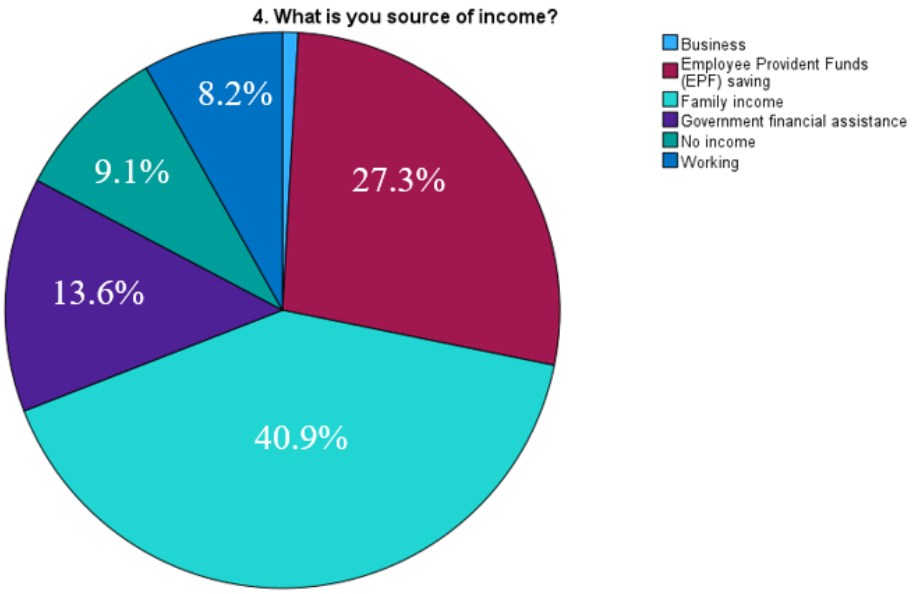


Figure 4.1.4: The pie chart of the source for income

Figure 4.1.4 represents the source of income for elderly in Klang Valley by the 110 respondents. There were given four types of sources of income distributed for the respondent to choose from. Based on the pie chart, the highest frequency group of chosen sources of income are family income 40.9% with 45 respondents. The second highest frequency group is the Employee Provident Funds (EPF) savings 27.3% with 30 respondents. Follow by the government financial assistance 13.6% with 15 respondents. Continue with the last choice given which is no income 9.1% with 10 respondents. Lastly, others elderly that are still working or doing business, 8.2% with 9 respondents that are still working and only 0.9% that is 1 respondent that are doing its own business.

Figure 15: The pie chart of owning any vehicle in Klang Valley

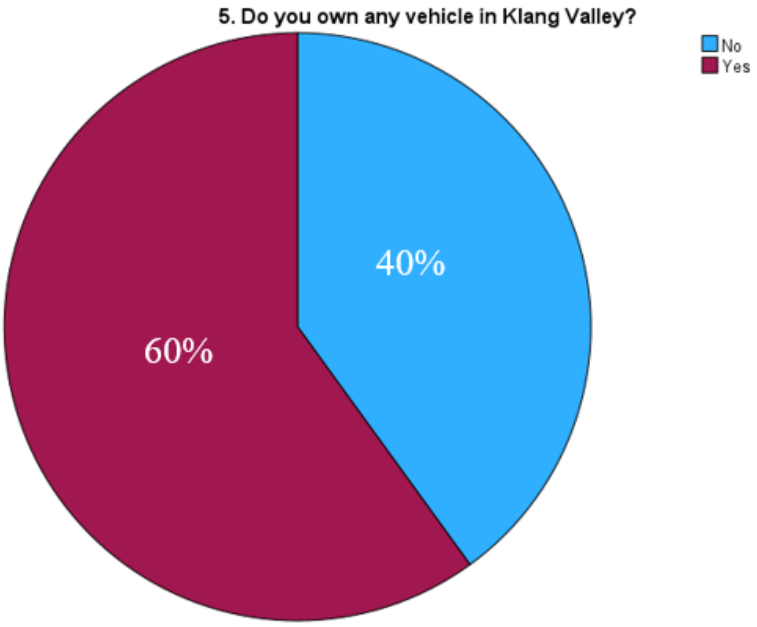


Figure 4.1.5: The pie chart of owning any vehicle in Klang Valley

Figure 4.1.5 demonstrates the frequency of elderly owning their own vehicle in Klang Valley. It is shown that there are 60% of the respondent own their own vehicle, with 66 respondents. While the other 40% does not own any of the vehicle, with an amount of 44 respondents.

Figure 16: The pie chart of health condition possessed by the elderly

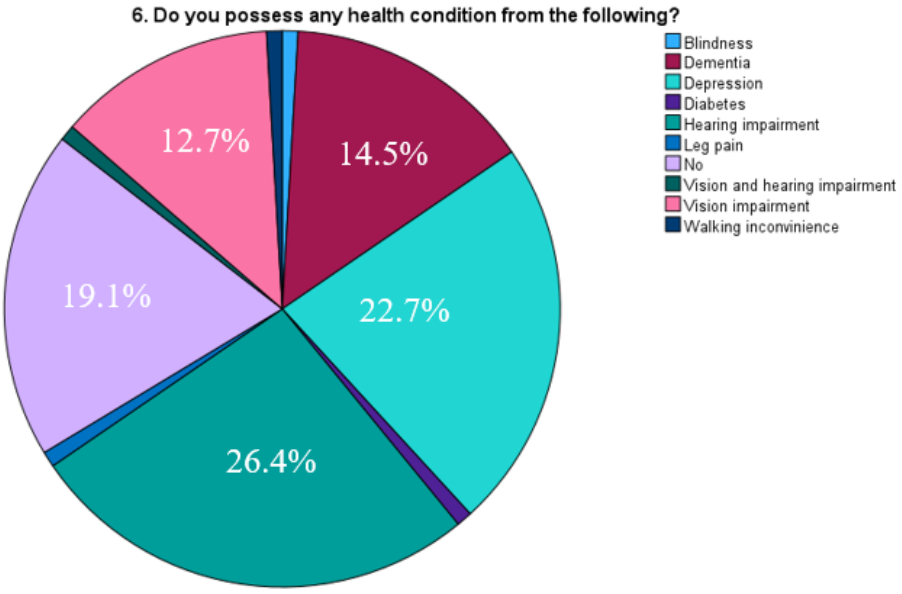


Figure 4.1. 6: The pie chart of health condition possessed by the elderly

The health condition possessed by the elderly are shown in the Figure 4.1.6 above. There are four types of health condition choice given in the questionnaire that is vision impairment, hearing impairment, dementia, and depression. From the pie chart, the health condition that possessed the highest percentage are the hearing impairment, with 26.4% respondents. Follow by the second highest health condition that elderly has is depression, with 22.7% respondents. Surprisingly, the third highest frequency is that there is no health condition possessed by the elderly, with 19.1% respondents. Continuously, the two choices left will be dementia and vision impairment, with 14.5% respondents and 12.7% respondents respectively. Lastly, rest of the 4 respondents has other health condition that are leg pain, walking inconvenience, diabetes, and blindness. Also, the last respondent has both vision and hearing impairment.

4.1.2 Central Tendencies Measurement of Constructions

Figure 17: The descriptive analysis of the preferred transportation mode among elderly

7. What transportation mode do you prefer the most?

N	Valid	110
	Missing	0
Mean		1.70
Median		1.00
Mode		1

Figure 4.1.7: The descriptive analysis of the preferred transportation mode among elderly

Values:

1=Own vehicle (car), 2= Taxis or Ride-Hailing service, 3= Bus Service, 4= Rail Service

From the Figure 4.1.8 shows the mean, median, and mode of the preferred transportation mode among elderly in Klang Valley. It is observe that the highest preferred transportation mode among elderly is own vehicle based on the mean, median, and mode.

Figure 18: The pie chart of the preferred transportation mode among elderly

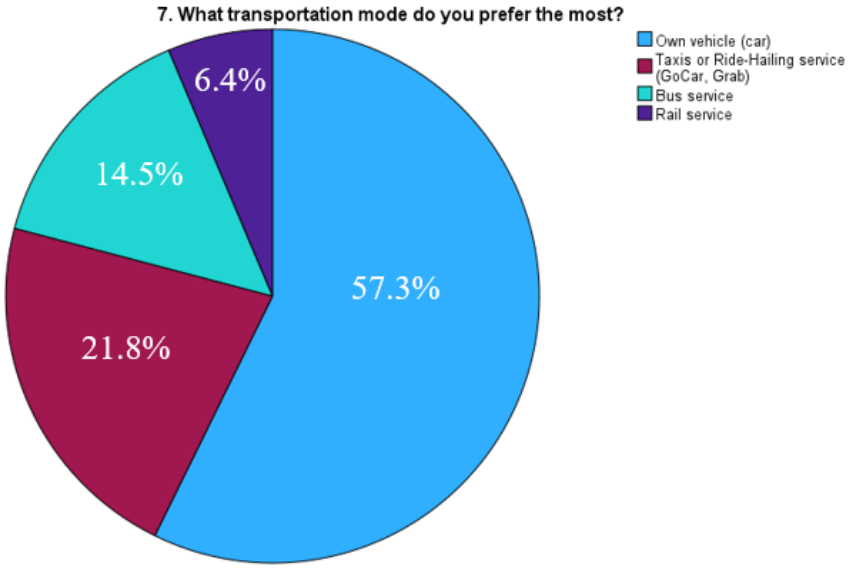


Figure 4.1.8: The pie chart of the preferred transportation mode among elderly

Figure 4.1.9 shows the preferred transportation mode among elderly in Klang Valley. The most transportation mode that the elderly preferred based on the pie chart in figure 4.1.9 which is own vehicle (car) with 57.3% of respondents. Next, the second most preferred transportation mode is taxis or ride-hailing service like GoCar or Grab, with 21.8% of respondents. Furthermore, there are 14.5% of respondents who preferred to take by bus to travel within Klang Valley. Lastly, the least transportation mode they preferred is the rail service with only 6.4% of respondents.

4.2 Scale Measurement

With a reliability test, scale measurement will be done for the information gathered from 110 respondents. This reliability test will be conducted using Cronbach's Alpha, and the data will be input into the SPSS system to produce the results.

Table 2: Case Processing Summary for Reliability test

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Table 3: Total of all items of Cronbach's alpha analysis

Cronbach's Alpha	***N of Items***	***Score***
0.854	23	Good

Table 4: Section B Cronbach's alpha analysis

Transportation mode	***Cronbach's Alpha***	***N of Items***	***Score***
Own Vehicle	0.868	4	Good
Taxis or Ride-Hailing Service	0.923	4	Excellent
Bus Service	0.924	4	Excellent
Rail Service	0.930	4	Excellent

In table 4.2.1 to table 4.2.3, there are 30 sets of data in total for the reliability test, and there are four factors of choices for each transportation mode. According to Cronbach's Alpha results, a score between 0.8 and 0.9 is considered good, and a score above 0.9 is

considered excellent (Glen S. , 2021). This evidence shows that respondents' ratings of the survey's results ranged from good to excellent.

4.3 Descriptive Analysis

4.3.1 Descriptive Statistic

By adding up all the numbers and dividing it by the total of elements in the collection, you may find the mean, often known as the "average." The median value in a set of data is known as the median. List all pieces of data in ascending order, then take the middle one to determine the median. The most frequent value in a set is called the mode (Glen S. , 2021). To define which of the factors affecting elderly choice in transportation mode, the mean and median between the factors should be the higher the better. In addition, mode is which value appears the most so in this situation the highest also means the most important.

The data below are total of four items with the mean, median, and mode which were obtained through the SPSS output. All constructs were tapped on the 4-point Likert scale with 1 indicating Not important, 2 indicating Slightly not important, 3 indicating Important, and 4 indicating Very important.

Notes:

1= Not important

2= Slightly not important

3= Important

4= Very important

Table 5: Descriptive Analysis for Section B Own Vehicle (Car)

Own Vehicle (car)

		Cost Saving	Convenient	Trip Time	Lifestyle
N	Valid	63	63	63	63
	Missing	47	47	47	47
Mean		2.32	3.48	1.94	2.27
Median		2.00	4.00	2.00	2.00
Mode		1	4	2	1

Table 4.3.1 shows the mean, median, and mode for on the four factors for own vehicle (car) that is shown that convenient is the highest value. This prove that the main factors that the elderly choose to use own vehicle is because of convenience. Followed by looking at the Mode value the trip time is second highest, but the mean is lower meaning that the average of the elderly does not think trip time is important (mean=1.94). On the other hand, the average of the elderly finds it is more cost savings and still very compatible to their lifestyle, but most says cost saving is the not important.

Table 6: Descriptive Analysis for Section B Taxis or Ride-Hailing Service (Grab/GoCar)

Taxis or Ride-Hailing Service (Grab/GoCar)

		Cost Saving	Convenient	Trip Time	Lifestyle
N	Valid	24	24	24	24
	Missing	86	86	86	86
Mean		2.21	3.58	2.71	1.50
Median		2.00	4.00	3.00	1.00
Mode		2	4	3	1

Table 4.3.1 shows the mean, median, and mode for Taxis or Ride-Hailing Service (Grab/GoCar) on the four factors for that is shown that convenient is the highest value. This prove that the main factors that the elderly choose to use taxis or ride-hailing service is because of convenience. Next, the elderly

preferred to use taxis or ride-hailing service because of the trip time might be shorter. Followed by the cost saving when using taxis or ride-hailing service, and lastly the lifestyle.

Table 7: Descriptive Analysis for Section B Bus Service

Bus Service

		Cost Saving	Convenient	Trip Time	Lifestyle
N	Valid	16	16	16	16
	Missing	94	94	94	94
Mean		3.19	2.50	2.50	1.81
Median		4.00	2.50	3.00	1.50
Mode		4	2[a]	3	1

a. Multiple modes exist. The smallest value is shown

Table 4.3.1 shows the mean, median, and mode for Bus Service on the four factors for that is shown that cost savings is the highest value. This prove that the main factors that the elderly choose to use bus service is because it is more cost savings compare to the other transportation mode. Followed by the trip time and convenient even though the convenient and trip time has the same mean value, however, trip time is still more important than the convenience depending on the Median value for trip time is higher than convenient. Lastly, it is the lifestyle, is it shown that using bus service is really not elderly lifestyle.

Table 8: Descriptive Analysis for Section B Rail Service

Rail Service

		Cost Saving	Convenient	Trip Time	Lifestyle
N	Valid	7	7	7	7
	Missing	103	103	103	103
Mean		3.14	3.00	2.43	1.43

Median	3.00	3.00	2.00	1.00
Mode	4	3	2	1

Table 4.3.1 shows the mean, median, and mode for Rail Service on the four factors for that is shown that cost savings is the highest value. This prove that the main factors that the elderly choose to use rail service is because it is more cost savings compare to the other transportation mode. Followed by the convenient even though the convenient as elderly might be staying closer to the station so it is more convenient. Next, the trip time is slightly not important for the elderly when choosing to use rail service. Lastly, it is the lifestyle, is it shown that using rail service is really not elderly lifestyle.

CHAPTER 5: DISCUSSION, CONCLUSION, AND IMPLICATIONS

5.0 Introduction

With descriptive analysis, cross tabulation analysis, and SPSS computer software, all of the research was gathered and examined in the previous chapter. The findings and conclusion in this chapter will be based on the data analysis performed from the previous chapter, which is then followed by a summary of the statistical analysis, discussion of the major findings, implications of the study, limitations of the research study, recommendations for future research, and a conclusion for the entire research study project.

5.1 Descriptive Analysis

The 110 respondents for the gender, age range, current staying in Klang Valley, the source of income, owning of any vehicles in the Klang Valley, health condition of the elderly, and preferred mode of transportation among the elderly are included in the demographic profile data. In order to summarize and draw a conclusion from the demographic profile data, the descriptive analyses were used. The data was collected using a questionnaire survey.

5.1.1 Respondent Demographic Profile

Demographic data are measured by frequency, and the data analysis and frequency result are displayed in a pie chart. As evidenced by the outcomes, there were 41 males and 69 females collected from the questionnaire. Follow

by the age range of the respondents; from the data analysis acquired, the largest frequency is between the age 60 to 74, followed by the age range of 75 to 84, and finally the age range of aged 85 and above, with a total of 14.5%. This provided a more accurate reflection of the younger elderly respondents to the questionnaire and the most active aged elderly in the Klang Valley.

In addition, the analysis showed that respondents who are currently staying in the Klang Valley make up 91.8 percent of the sample, while respondents who are not currently staying in the Klang Valley make up 8.2 percent.

Furthermore, the frequency analysis also shows that the elderly with the most used source of income is the family income that which the elderly may be getting their income from their children or money within the family. Furthermore, Employee Provident Funds which we know as EPF savings with a 27.3%. Follow by the government financial assistance with a 13.6% and elderly that has no income with 9.1% which there is 10 respondents. Lastly, from the others source of income which is with 9.1% as well with 9 respondents that are working or having their income by own business. Moreover, the analysis also shows that there are 60% of the respondent own their own vehicle, with 66 respondents. While the other 40% does not own any of the vehicle, with an amount of 44 respondents.

Continuously, the health condition of the elderly was also asked in the questionnaire with the with 29 respondents, hearing impairment is the most frequent result. Depression is the second most common medical condition among the elderly, according to 25 respondents. Surprisingly, with 21 respondents, the third-highest frequency is that elderly people do not have any health conditions. Dementia and vision impairment will always be the only two options left, with 16 and 14 respondents, respectively. Last but not least, the remaining four respondents have additional health issues including leg pain, difficulty walking, diabetes, and blindness. The final respondent also has hearing and vision impairment.

5.1.2 Scale Measurement

The Cronbach's Alpha Coefficient Rule of Thumb states that the internal consistency of the data is worse the smaller the number ratio. Cronbach's alpha's internal consistency should be 0.7 or higher. The reliability exam has 110 data sets in total, there are 4 reasons of choice for Section B and 4 factors of choices for Section C for each transportation mode. According to Cronbach's Alpha results, a score between 0.8 and 0.9 is considered good, and a score above 0.9 is considered excellent (Glen S. , 2021). This evidence shows that respondents' ratings of the survey's results ranged from good to excellent. The question reliability test has been found to be suitable for use when all of the questions in each segment have above average scores of 0.845.

5.1.2 Descriptive Statistic

In this research, 110 respondents were collected through the questionnaire and not all questionnaires are valid for this research, but it is removed from the data. The Section B data from the questionnaire is being process using frequency analysis from the SPSS software. The data is to determine which factors affecting the elderly choice in transportation mode by using the Mean, Median, and Mode. All constructs were tapped on the 4-point Likert scale with 1 indicating Not important, 2 indicating Slightly not important, 3 indicating Important, and 4 indicating Very important.

5.2 Discussion on Major Findings

5.2.1 Research Objective 1 (RO1): To investigate the preferred transportation mode among elderly in Klang Valley.

Table 9: Descriptive analysis for preferred transportation mode among elderly

The preferred transportation mode among elderly	Frequency	Percentage %
Own vehicle	57.3	57.3%
Taxis or Ride-Hailing Service (GoCar/Grab)	21.8	21.8%
Bus Service	14.5	14.5%
Rail Service	6.4	6.4%
	100	100%

The table 5.2.1 shows the preferred transportation mode among elderly in Klang Valley. The table shows that the most preferred transportation mode among elderly is using own vehicle which also means they preferred to drive on their own that is with the outcome of having own vehicle with 57.3%. However, this could bring more deadly accident on the road as we can see that most elderly has health issues when they reached above 60 years old and above. The next preferred transportation mode that the elderly preferred is the taxis or ride-hailing service, with 21.8% respondents. Furthermore, there are 14.5% respondents who preferred to take by bus to travel within Klang Valley. Lastly, the least transportation mode they preferred is the rail service with only 6.4% of respondents. Therefore, it is foreseen that the elderly would still prefer to drive by themselves rather than taking the public transportation or hailing a taxi or ride-hailing service like the GoCar or Grab in Klang Valley.

5.2.2 Research Objective 2 (RO2): To determine the factors affecting the elderly choice in the transportation mode.

Table 10: Descriptive statistic on Section B Private Transportation

Own Vehicle (car)					
		Cost Saving	Convenient	Trip Time	Lifestyle
N		63	63	63	63
Mean		2.32	3.48	1.94	2.27
Median		2.00	4.00	2.00	2.00
Mode		1	4	2	1
Taxis or Ride-Hailing Service (Grab/GoCar)					
		Cost Saving	Convenient	Trip Time	Lifestyle
N	Valid	24	24	24	24
Mean		2.21	3.58	2.71	1.50
Median		2.00	4.00	3.00	1.00
Mode		2	4	3	1

RO2 data are based on the Section B of the questionnaire which uses descriptive statistic of Mean, Median, and Mode to justify the result. From the final result on table 5.2.1, it is shown that the most used transportation mode which is own vehicle and taxis, or ride-hailing service that also known for private transportation are used because of convenient. This is because that the elderly finds that when driving on their own or calling taxis or ride-hailing service like Grab or GoCar it has more freedom compared to other transportation mode. As well as the cost saving is not their main concern which leads to the elderly that drives on their own have less financial burden compare with the other elderly has chosen other transportation mode. This is due when driving on their own there will have more cost on the car, driving licenses and others. Next, the trip time for own vehicle and taxis or ride-hailing service are the second highest as

the trip time usually for this private transportation are shorter compared to public transportation. Therefore, we can conclude that the elderly would choose own vehicle and taxis, or ride-hailing service is because of convenience.

Table 11: Descriptive statistic on Section B Public Transportation

Bus Service					
		Cost Saving	Convenient	Trip Time	Lifestyle
N	Valid	16	16	16	16
Mean		3.19	2.50	2.50	1.81
Median		4.00	2.50	3.00	1.50
Mode		4	2[a]	3	1
Rail Service					
		Cost Saving	Convenient	Trip Time	Lifestyle
N	Valid	7	7	7	7
Mean		3.14	3.00	2.43	1.43
Median		3.00	3.00	2.00	1.00
Mode		4	3	2	1

On the other hand, table 5.2.3 shows the descriptive analysis for the public transportation for bus service and rail service are mostly used because it is more cost saving for the elderly. This is due to the elderly finds that bus service and rail service are more cost efficient compared to the own vehicle and taxis or ride-hailing service because the government provides half price for the elderly who register for the senior citizen concession card. As well as bus service and rail service does not need to pay for any expenses for own vehicle and taxis or ride-hailing service are usually more expensive. However, it is also proved that

bus service and rail service are really not elderly lifestyle as the results from the descriptive analysis of the Mean, Median, and Mode has the lowest value compare with the trip time and convenient. Based on the results, it shows that convenient placed the second highest for both public transportation as this may be because the elderly stays closer to the station from where they are and where they are going. Lastly, the trip time is slightly not important for the elderly this is also because the usually public transportation takes longer time to reach the destination.

5.3 Implications of the study

Based on this research the elderly population has been increasing every year, it is important that the research on the elderly should be notice. In this case, the preferred transportation mode among elderly in Klang Valley and the factors affecting the elderly choice has been put to observe. The factors that have been included which is cost savings, convenient, trip time, and lifestyle.

The implication of this study is to provide advantage and insight for the academic researchers. The academics can understand more on the transportation mode that the elderly prefer and factors as to why they choose it in Klang Valley. Furthermore, the academics can know if there is a different conclusion in different area. Academics can use this study to further develop relevant research in the future.

Last but not least, the younger generations may also have a change to their lifestyle. The younger generations nowadays mostly depend on driving than taking public transportation. This could lead to more pollution and traffic congestion and more dangerous accident on the road. Therefore, hoping from this study could show the younger generation now have a change of lifestyle.

5.4 Limitation of the study

5.4.1 Limited researchers for this study

In contrast to other studies, this study was conducted by just one researcher as opposed to the majority of investigations, which involve multiple researchers. As a result, this study is less productive and requires greater effort and time to complete than studies that involve more researchers. Additionally, it was harder to search for data, gather data, test data, and transform data.

5.4.2 Small sample size

Based on the study subject, the research attempts to investigate the preferred transportation mode among elderly and factors affecting elderly choice in the Klang Valley. The research topics are limited to Malaysia's Klang Valley, the majority of the study's sample population is elderly, ranging in age from 60 to 74, so it may not accurately reflect Malaysian society as a whole. Additionally, because the trend is always changing as a result of environmental and temporal factors, the statistics is not always compatible with the recent trend. As a result, senior citizens' transportation preferences will continue to evolve.

5.4.3 Distribution difficulty on questionnaire

This research is done online through google form by distributing to the friends, family, social media groups, and others. It faced a big problem as to most elderly is not technology savvy which leading, they have difficulty answering through the google form. Therefore, it was necessary to having went to near parks, shopping malls and nearby station to distribute and helping with the elderly to fill in the forms.

5.5 Recommendation for future research

5.5.1 Completing with more researchers

The first advice for aspiring researchers is to complete the study with multiple researchers. This is because having more individuals work on a study can enhance productivity and enable researchers to work on it with less time and effort. It will be easier on one researcher if there are many people to divide the workload. Additionally, since each researcher has a unique background, using several researchers to finish a study can help to minimize errors. As a result, the researchers can collaborate to fix problems when they arise. In order to guarantee the reliability of the study's findings, the researchers can also prevent a few of the potential problems that could arise during the investigation.

5.5.2 Enlarge sample size

Future studies can focus on the respondents in a sample size greater than 110 respondents. 1000 Malaysians, for instance, of various ages. In addition to publications, journals, and websites, researchers can search and gather information from a wider range of sources. Additionally, in order to be complying and follow the most recent trend, the data collected can be no older than three years old.

5.5.3 Different data collection method

The future studies for other researchers may suggest to so another data collection method like having interviews with the elderly. This could help with more information on the detail why of the choices of the elderly. In addition,

the researcher could also have less difficulty in collection through online as elderly has trouble with the latest technology.

5.6 Conclusion

In conclusion, this study has investigated the preferred transportation mode among elderly in Klang Valley and factors affecting elderly choice in transportation mode. This study has achieved all the research objectives. The result for the first and second research objective is achieved by using descriptive analysis. The first research objective (RO1) is done based on the pie chart from frequency analysis. The second research objective (RO2) is justified through Mean, Median, and Mode. In addition, the RO1 has shown that the most preferred transportation mode among elderly is own vehicle, follow by taxis or ride-hailing service then bus service and lastly, rail service which is the least transportation mode preferred. Lastly, the RO2 has the result of the elderly choose private transportation like own vehicle and taxis or ride-hailing service because it is convenient and for public transportation like bus service and rail service it is due to cost savings.

REFERENCES

Admin, W. (2020, June 11). *Importance and benefits of SPSS in research*. Retrieved from Writeneed: https://www.writeneed.com/post/2017/07/05/importance-and-benefits-of-spss-in-research

Aguiar, B., & Macário, R. (2017). *The need for an Elderly centred mobility policy.* Transportation, 4355-4369.

Aizan HAMID, T. (2019). *Ageing in Malaysia*.

Akhtar, I. (2016). *Research Design. Research in Social Science*: Interdisciplinary Perspectives, 68.

Akhtar, M. I. (2016). *Research Design.*

Albacete, X., Olaru, D., Paül, V., & Biermann, S. (2017). *Measuring the Accessibility of Public Transport: A Critical Comparison Between Methods in Helsinki.* Applied Spatial Analysis and Policy, 10(2), 161–188. https://doi.org/10.1007/s12061-015-9177-8

Alsnih, R., & Hensher, D. (2003). *Many older people prefer driving as a mode of transport, with today's seniors having.* Transportation Research Part A: Policy and, 903-916.

Amarya, S., Singh, K., & Sabharwal, M. (2018, July 04). *Ageing Process and Physiological Changes.* Retrieved from IntechOpen: https://www.intechopen.com/chapters/60564

Ang, B. H., Chen, W. S., & Lee, S. W. H. (2017). *Global burden of road traffic accidents in older adults: A systematic review and meta-regression analysis.* Archives of Gerontology and Geriatrics, 72, 32–38. https://doi.org/10.1016/j.archger.2017.05.004

Ang, B. H., Lee, S. W. H., Oxley, J., Yap, K. K., Song, K. P., Kamaruzzaman, S. B., Chin, A. v., Tan, K. M., Khor, H. M., & Chen, W. S. (2019). *Self-regulatory driving and riding practices amongst older adults in Malaysia.* Transportation Research Part F: Traffic Psychology and Behaviour, 62, 782–795. https://doi.org/10.1016/j.trf.2019.03.014

Ang, M. V. (2021, Jun 04). *7 Places Offering Free Transport to Help Senior Citizens Get Their COVID-19 Vaccines. Retrieved from Says*: https://says.com/my/lifestyle/free-transport-and-companion-services-for-senior-citizens-getting-the-covid-19-vaccine

Astaras, A., Lewy, H., James, C., Katasonov, A., Rushin, D., & D. Bamidis, P. (2015). *Unobtrusive Smart Environments for Independent Living and the role of Mixed Methods in Elderly Healthcare Delivery*: The USEFIL Approach. In A.

Astaras, H. Lewy, C. James, A. Katasonov, D. Rushin, & P. D. *Bamidis, Unobtrusive Smart Environments for Independent Living and the role of Mixed Methods in Elderly Healthcare Delivery*: The USEFIL Approach (p. 16).

Aw, T. (2016, August 24). *Gridlock Comes to Kuala Lumpur.* Retrieved from The New York Times: https://www.nytimes.com/2016/08/25/opinion/gridlock-comes-to-kuala-lumpur.html

Azira, E., Fogart, G., Nazrul Hakimi Ibrahim, A., & Azira Binti Mat Sharif, E. (n.d.). *AN ANALYSIS OF THEORY OF PLANNED BEHAVIOUR-UNDERSTANDING SENIOR CITIZEN BEHAVIOURAL INTENTION (BI) TO USE RAPI...* Related papers Understanding Older Consumers' Usage of Self-Service Banking Technologies: Test of Two … Predicting car drivers' intention to use low-cost airlines for intercity travel in Libya AN ANALYSIS OF THEORY OF PLANNED BEHAVIOUR-UNDERSTANDING SENIOR CITIZEN BEHAVIOURAL INTENTION (BI) TO USE RAPIDKL TOUCH N GO AT KLANG VALLEY, MALAYSIA.

Banister, D., & Bowling, A. (2004). *Quality of life for the elderly: the transport dimension*. Volume 11, Issue 2, 105-115.

Bartlett, E., J., Kotrlik, W., J., Higgins, &., & C., C. (2001). *Organizational Research: Determining Organizational Research: Determining Appropriate Sample Size in Survey Research Appropriate Sample Size in Survey Research.* Information Technology, Learning, and Performance, 45-50.

Bhandari, P. (2022, August 19). *Correlational Research | When & How to Use.* Retrieved from Scribbr: https://www.scribbr.com/methodology/correlational-research/#:~:text=A%20correlational%20research%20design%20investigates,two%20(or%20more)%20variables.

Blevins, N. H. (2022, July). *Presbycusis.* Retrieved from UpToDate: https://www.uptodate.com/contents/presbycusis

Böcker, L., van Amen, P., & Helbich, M. (2017). *Elderly travel frequencies and transport mode choices in Greater Rotterdam, the Netherlands.* Transportation, 44(4), 831–852. https://doi.org/10.1007/s11116-016-9680-z

Borhan, M. N., Hakimi Ibrahim, A. N., Syamsunur, D., & Rahmat, R. A. (2019). *Why public bus is a less attractive mode of transport: A case study of Putrajaya, Malaysia.* Periodica Polytechnica Transportation Engineering, 47(1), 82–90. https://doi.org/10.3311/PPtr.9228

Brohier, M. (2017, August 22). *The Best Public Transport To Get Around In The Klang Valley.* Retrieved from iMoney.my: https://www.imoney.my/articles/public-transport-klang-valley

Brohier, M. (2017, August 22). *The Best Public Transport To Get Around In The Klang Valley*. Retrieved from iMoney: https://www.imoney.my/articles/public-transport-klang-valley

Brundell, S. (2014). *Statistics for the older adults 2013/2014.* Retrieved from hi. se: http://www.hi.se/Global/dokument/publikationer/2014/14309-pdf-aldrestatistik-2013-2014.pdf

Bruno Aguiar, R. M. (2016, July 10). *The need for an Elderly centred mobility policy.* Retrieved from ScienceDirect: https://pdf.sciencedirectassets.com/308315/1-s2.0-S2352146517X00070/1-s2.0-S2352146517306166/main.pdf?X-Amz-Security-Token=IQoJb3JpZ2luX2VjEEcaCXVzLWVhc3QtMSJHMEUCIQCYsOWDF6dnsB07nSGiYR1uhcRv%2F%2BbuYexcE%2B2UiQ3crgIgb1zhatV86vDCGWBU3xL6uDfdWodZw9AGYGTTmZ

Budget2022. (2022). *Financial Assistance for Elderly (BWE).* Retrieved from Budget2022: https://budget.mof.gov.my/manfaat/en/faq/bwe.html

Bush, T. (2020, April 26). *Descriptive Analysis: How-To, Types, Examples.* Retrieved from Pestle Analysis: https://pestleanalysis.com/data-analysis/

Caraher, K. (2022). *Issues in incomes provision for the elderly in Malaysia.*

Champahom, T., Jomnonkwao, S., Nambulee, W., Klungboonkrong, P., Karoonsoontawong, A., & Ratanavaraha, V. (2020). *Analyzing transport mode choice for aging society in Thailand.* Engineering and Applied Science Research, 47(4), 383–392. https://doi.org/10.14456/easr.2020.41

Chang, C. T., Lim, X. J., Supramaniam, P., Chew, C. C., Ding, L. M., & Rajan, P. (2022). *Perceived Gap of Age-Friendliness among Community-Dwelling Older Adults: Findings from Malaysia, a Middle-Income Country.* International Journal of Environmental Research and Public Health, 19(12). https://doi.org/10.3390/ijerph19127171

Chee, W. T. (2022, July 05). *Public Transport in Klang Valley*. Retrieved from MYsinchew: https://mysinchew.sinchew.com.my/20220705/public-transport-in-klang-valley/\

Cheng, H. G., & Phillips, M. R. (2014, December). *Secondary analysis of existing data: opportunities and implementation.* Retrieved from PubMed Central: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4311114/

Chern Ang, W., & Khalid, K. (2021). *Ageing and Mental Health: A 3-Year Analysis on Elderly Psychopathology in Northwest Malaysia.* https://www.researchgate.net/publication/348924033

Chiu Chuen, O., Karim, M. R., & Yusoff, S. (2014). *Mode choice between private and public transport in Klang Valley, Malaysia.* The Scientific World Journal, 2014. https://doi.org/10.1155/2014/394587

Christaens, J. (2009). *Mobility and the elderly - Successful ageing in a sustainable transport system.* Belgian Science Policy.

Chuen, O. C., Karim, M. R., & Yusoff, S. (2014, February 19). *Mode Choice between Private and Public Transport in Klang Valley, Malaysia.* Retrieved from The Scientific World Journal: https://www.hindawi.com/journals/tswj/2014/394587/

Cleave, P. (2021, January 18). *Advantages Of Questionnaires in Online Research.* Retrieved from SmartSurvey: https://www.smartsurvey.co.uk/blog/advantages-of-questionnaires-in-online-research

CodeBlue. (2021, June 24). *Khairy: Two-Thirds of Klang Valley Elderly Vaccinated Against Covid-19.* Retrieved from CodeBlue: https://codeblue.galencentre.org/2021/06/24/khairy-two-thirds-of-klang-valley-elderly-vaccinated-against-covid-19/

Crossman, A. (2019, November 04). *Understanding Secondary Data and How to Use It in Research.* Retrieved from ThoughtCo: https://www.thoughtco.com/secondary-analysis-3026573#:~:text=Secondary%20data%20can%20be%20both%20quantitative%20and%20qualitative%20in%20form.

Cuomo, C. K. (2017, November 20). *The Case for Sustainable Urban Transportation for Malaysia.* Retrieved from Jeffrey Sachs Center: https://jeffreysachs.center/columns-op-eds/The-Case-for-Sustainable-Urban-Transportation-for-Malaysia

Currie, G., & Delbosc, A. (2010). *Exploring public transport usage trends in an ageing population.* Transportation, 151-164.

Curtis, K. R., & Allen, S. (2018, December). *Target Market Identification and Data Collection Methods.* Retrieved from Digital Commons: https://digitalcommons.usu.edu/extension_curall/1944/

Dalati, S. (2018, March 31). *Measurement and Measurement Scales.* Retrieved from ResearchGate: https://www.researchgate.net/publication/324117390_Measurement_and_Measurement_Scales

Dodson, J., Buchanan, N., Gleeson, B., & Sipe, N. (2006). *Investigating the Social Dimensions of Transport Disadvantage-I. Towards New Concepts and Methods.* Urban policy and research, 433-453.

DOSM. (2021). *Federal Territory of Kuala Lumpur*. Retrieved from DOSM: https://www.dosm.gov.my/v1/index.php?r=column/cone&menu_id=bjRlZXVGdnBueDJKY1BPWEFPRlhIdz09

DOSM. (2021, August 20). *Selangor*. Retrieved from Department of Statistic Malaysia Official Portal: https://www.dosm.gov.my/v1/index.php?r=column/cone&menu_id=eGUyTm9RcEVZSllmYW45dmpnZHh4dz09

DOSM. (2021, July 15). *Current Population Estimates, Malaysia, 2021*. Retrieved from Department of Statistics Malaysia Official Portal: https://www.dosm.gov.my/v1/index.php?r=column/cthemeByCat&cat=155&bul_id=ZjJOSnpJR21sQWVUcUp6ODRudm5JZz09&menu_id=L0pheU43NWJwRWVSZklWdzQ4TlhUUT09#:~:text=Malaysia's%20population%20in%202021%20is,to%202.7%20million%20(2021)%20.

Elo, S., Kaariainen, M., Kansta, O., Polkki, T., Utriainen, K., & Kyngas, H. (2014, February 11). *Qualitative Content Analysis: A Focus on Trustworthiness.* Retrieved from Sage Journal: https://journals.sagepub.com/doi/full/10.1177/2158244014522633

Eric. (2017, September 29). *Difference between Public and Private Transport.* Retrieved from CosGroves: https://executivechauffeursireland.com/difference-between-public-and-private-transport/

Fadzil Abdul Rashid, M., & Ab Ghani, I. (2009). *THE IMPORTANCE OF INTERNAL MIGRATION: IN THE CONTEXT OF URBAN PLANNING DECISION MAKING* Spatial distribution of migration in the Klang Valley region View project THE IMPORTANCE OF INTERNAL MIGRATION: IN THE CONTEXT OF URBAN PLANNING DECISION MAKING. https://www.researchgate.net/publication/260481175

Farhana Mohammed Noor, N., Kadir Shahar, H., Zainalaludin, Z., Aizan Tengku Abdul Hamid, T., Anom Ahmad, S., Zaman Rokhani, F., Ujang, N., Syah Md Yusoff, I., & Aisyah Nor Akahbar, S. (2022). *Implication of transit transfer to the older adults: a systematic review*. https://doi.org/10.21203/rs.3.rs-1525054/v1

Farhana, N., Noor, M., Kadir Shahar, H., Aizan, T., Hamid, T. A., Zainal-Aludin, Z., Ahmad, S. A., Zaman Rokhani, F., Ujang, N., Syah, I., Yusoff, M., Aisyah, S., & Akahbar, N. (2022). *Understanding Travel Behavior and Sustainability of Current Transportation System for Older Adults in Malaysia: A Scop-ing Review.* https://doi.org/10.20944/preprints202207.0095.v1

Fatima, K. (2021). *Accessible Transport System for the Elderly*.

Fatima, K., Moridpour, S., & Saghapour, T. (2020, December). *Elderly transport preference within local urban areas.* Retrieved from ACM Digital Library: https://dl.acm.org/doi/fullHtml/10.1145/3450292.3450309

Fatima, K., Moridpour, S., de Gruyter, C., & Saghapour, T. (2020). *Elderly sustainable mobility: Scientific paper review.* In Sustainability (Switzerland) (Vol. 12, Issue 18). MDPI. https://doi.org/10.3390/SU12187319

Fazzillah, N., Noordin, M., Marizwan, M., Manan, A., & Ghani, Y. (2022). *Factors Influencing Public Transport Use: A Study of Klang Valley Commuters' Information System Tools.* Journal of Advanced Vehicle System Journal Homepage: Road Engineering & Environment Research Centre, 13, 8–22. http://www.akademiabaru.com/submit/index.php/javs/index

Ghapar Othman, A., & Hj Ali, K. (2020). *TRANSPORTATION AND QUALITY OF LIFE.* In Journal of the Malaysian Institute of Planners (Vol. 18).

Glen, S. (2020). *Cronbach's Alpha: Definition, Interpretation, SPSS*. Retrieved from StatisticsHowTo.com: https://www.statisticshowto.com/probability-and-statistics/statistics-definitions/cronbachs-alpha-spss/

Gomes, V. (2020). *Support for senior mental health still lacking.* Retrieved from The Edge Malaysia: https://www.theedgemarkets.com/article/support-senior-mental-health-still-lacking#:~:text=The%20most%20common%20mental%20and,60%20and%20above%20was%2024%25.

Grab. (2021, December). *Grab Malaysia To Support Vaccination For Senior Citizens with Discounted Rides.* Retrieved from Grab: https://www.grab.com/my/press/others/grab-malaysia-to-support-vaccination-for-senior-citizens-with-discounted-rides/#:~:text=Citizens%20who%20are%20aged%2060,centres%20starting%20from%2012%20June.

Gregory, S. D., Stevens, M. C., & Fraser, J. F. (2017). *Mechanical Circulatory and Respiratory Support. Elsevier.*

Guggal, N. (2022, September 07). *What Is Data Processing: Cycle, Types, Methods, Steps and Examples.* Retrieved from Simplilearn: https://www.simplilearn.com/what-is-data-processing-article

Hair, J. F., Babin, B. J., Anderson, R. E., & Black, W. C. (2018). *Multivariate Data Analysis, 8th edition.* Cengage India. Retrieved from Amazon.

Hayes, A. (2022, August 01). *Descriptive Statistics: Definition, Overview, Types, Example.* Retrieved from Investopedia: https://www.investopedia.com/terms/d/descriptive_statistics.asp

Hildebrand, E. (2003). *Dimensions in elderly travel behaviour: A simplified activity-based model using lifestyle clusters.* Transportation, 285-306.

Hounsell, N. B., Shrestha, B. P., McDonald, M., & Wong, A. (2016). *Open Data and the Needs of Older People for Public Transport Information.* Transportation Research Procedia, 14, 4334–4343. https://doi.org/10.1016/j.trpro.2016.05.355

Jaul, E., & Barron, J. (2017, December 11). *Age-Related Diseases and Clinical and Public Health Implications for the 85 Years Old and Over Population.* Retrieved from PubMed Central: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5732407/#B2

Joseph Coughlin, P. D. (2001). *Transportation and Older persons: Perceptions and Preferences.* Washington: AARP.

Julaihi, F. A., Mohamad Bohari, A. A., Azman, M. A., Kipli, K., & Amirul, S. R. (2022). *The Preliminary Results on the Push Factors for the Elderly to Move to Retirement Villages in Malaysia. Pertanika Journal of Social Sciences and Humanities*, 30(2), 761–778. https://doi.org/10.47836/pjssh.30.2.18

Kim, D. (2019). *The transportation safety of elderly pedestrians: Modeling contributing factors to elderly pedestrian collisions.* Accident Analysis and Prevention, 131, 268–274. https://doi.org/10.1016/j.aap.2019.07.009

Kim, S. (2011, September). *Assessing mobility in an aging society: Personal and built environment factors associated with older people's subjective transportation deficiency in the US.* Retrieved from Elsevier: https://www.sciencedirect.com/science/article/abs/pii/S1369847811000507?via%3Dihub

Kim, S. (2011, September). *Transportation Research Part F: Traffic Psychology and Behaviour.* Retrieved from Elsevier: https://www.sciencedirect.com/science/article/abs/pii/S1369847811000507?via%3Dihub

Knoema. (2021). *Total population aged 75 years and over.* Retrieved from Knoema: https://knoema.com/atlas/Malaysia/topics/Demographics/Age/Population-aged-75-years#:~:text=Malaysia%20%2D%20Total%20population%20aged%2075%20years%20and%20over&text=In%202020%2C%20population%20aged%2075,average%20annual%20rate%20of%203.91%25.

Kuhar, C. (2010). *Experimental Design: Basic Concepts*. In Encyclopedia of Animal Behavior (pp. 693-695). USA.

Kumar Mattoo, S., Punia, V., Malik, L., & Khurana, H. (2018). *Handbook of Research on Geriatric Health, Treatment, and Care.* India: Scopus.

KWSP. (2020, jULY 10). *Make a smooth transition into retirement.* Retrieved from KWSP: https://www.kwsp.gov.my/member/withdrawals/full/age-55-60#age60

Lin, D., & Cui, J. (2021). *Transport and mobility need for an ageing society from a policy perspective*: *Review and implications.* International Journal of Environmental Research and Public Health, 18(22). https://doi.org/10.3390/ijerph182211802

Liu, W., Lu, H., Sun, Z., & Liu, J. (2017). *Elderly's travel patterns and trends: The empirical analysis of Beijing.* Sustainability (Switzerland), 9(6). https://doi.org/10.3390/su9060981

Liu, W., Lu, H., Sun, Z., & Liu, J. (2017, June 07). *Elderly's Travel Patterns and Trends: The Empirical Analysis of Beijing.* Retrieved from MDPI: https://www.mdpi.com/2071-1050/9/6/981

Macrotrends. (2022). *Kuala Lumpur, Malaysia Metro Area Population 1950-2022.* Retrieved from Macrotrends: https://www.macrotrends.net/cities/206411/kuala-lumpur/population#:~:text=The%20current%20metro%20area%20population,a%202.79%25%20increase%20from%202019.

Mahidin, D. S. (2020, July 15). *Current Population Estimates, Malaysia, 2020.* Retrieved from Department of Statistics Malaysia Official Portal: https://www.dosm.gov.my/v1/index.php?r=column/cthemeByCat&cat=155&bul_id=OVByWjg5YkQ3MWFZRTN5bDJiaEVhZz09&menu_id=L0pheU43NWJwRWVSZklWdzQ4TlhUUT09

McCombes, S. (2019, September 19). *Sampling Methods | Types, Techniques & Examples.* Retrieved from Scribbr: https://www.scribbr.com/methodology/sampling-methods/

McCombes, S. (2021, June 07). *What Is a Research Design | Types, Guide & Examples.* Retrieved from Scribbr: https://www.scribbr.com/methodology/research-design/

McLeod, S. (2019, August 03). *Sampling Methods | Types and Techniques Explained.* Retrieved from Simply Psychology: https://www.simplypsychology.org/sampling.html#:~:text=The%20target%20population%20is%20the,referred%20to%20as%20%E2%80%9Cparticipants%E2%80%9D.

Memon, M. A., Ting, H., & Hwa, C. J. (2020, June). Sample Size for Survey Research: Review and Recommendations. Retrieved from ResearchGate: https://www.researchgate.net/publication/343303677_Sample_Size_for_Survey_Research_Review_and_Recommendations

Mohd, S., & Md Sharif, N. (2020). *Active Ageing in Malaysia: Case Study In Georgetown.* Retrieved from European Publisher: https://doi.org/10.15405/epsbs.2020.03.03.37

Mohd, S., & Sharif, N. M. (2020, March 03). *Active Ageing in Malaysia: Case Study In Georgetown.* Retrieved from European Proceedings: https://www.europeanproceedings.com/article/10.15405/epsbs.2020.03.03.37#:~:text=Similar%20to%20the%20Czech%20Republic,and%20public%20transport%20(51%25)

Mohd, S., Abdul Latiff, A. R., & Senadjki, A. (2019). *Travel behavior of elderly in george town and Malacca, Malaysia.* Sustainability (Switzerland), 11(19). https://doi.org/10.3390/su11195251

Mohd, S., Latiff, A. R., & Senadjki, A. (2019, September*). Travel Behavior of Elderly in George Town and Malacca, Malaysia*. Retrieved from ResearchGate: https://www.researchgate.net/publication/336061529_Travel_Behavior_of_Elderly_in_George_Town_and_Malacca_Malaysia

Murugiah, S. (2022, July 12*). Malaysia's population set to rise to 33.2 million in 2022.* Retrieved from Theedgemarkets: https://www.theedgemarkets.com/article/malaysias-population-set-rise-332-million-2022

MyCSULA. (2013, August 06). *Frequency Analysis: SPSS (1.5).* Retrieved from instructables.com: https://content.instructables.com/pdfs/EVI/O3OJ/HJKBTBH7/Frequency-Analysis-SPSS-15.pdf

MyGovernment. (2022). *Senior Citizen Transportation Discount.* Retrieved from MyGovernment: https://www.malaysia.gov.my/portal/content/30404

MyGovernment. (2022, July 04). *The Elderly/Senior Citizens.* Retrieved from MyGovernment: https://www.malaysia.gov.my/portal/content/30740

MyRapid. (2022). *Concession Cards.* Retrieved from myrapid: https://myrapid.com.my/our-products/concession-cards/

Najmuddin, H. (2016, December 16). *MRT is meant to reduce congestion, not for speeding.* Retrieved from malaysiakini: https://www.malaysiakini.com/news/366352

NIA. (2018, November 20). *Hearing Loss: A Common Problem for Older Adults.* Retrieved from National Institute on Aging: https://www.nia.nih.gov/health/hearing-loss-common-problem-older-adults#:~:text=Presbycusis%20may%20make%20it%20hard,or%20her%20ability%20to%20hear.

Nor, N. N. F. M. (2019). *Demographic Issues in Malaysia. Asian Social Science*, 15(11), 116. https://doi.org/10.5539/ass.v15n11p116

Omaha, E. (2019, December 31). *Sensitivity to Sound as We Age. Retrieved from Omahasinus*: https://omahasinus.com/sensitivity-to-sound-as-we-age/#:~:text=Researchers%20found%20that%20older%20listeners,hearing%20challenges%20in%20older%20individuals.

Oribhabor, C. B., & Anyanwu, C. A. (2019, October). *Research Sampling and Sample Size Determination: A practical Application.* Retrieved from ResearchGate https://www.researchgate.net/publication/336723498_Research_Sampling_and_Sample_Size_Determination_A_practical_Application

Pereira, J. (2010). *Handbook of Research on Personal Autonomy Technologies and Disability Informatics.* Spain: Scopus.

Qualtics. (2022, July 21). *Determining sample size: how to make sure you get the correct sample size.* Retrieved from Qualtics https://www.qualtrics.com/au/experience-management/research/determine-sample-size/

Rani, Z. b. (2007, August 20). *Social Welfare Policies and Services For the Elderly: A Country Report (Malaysia).* Retrieved from https://www.mhlw.go.jp/bunya/kokusaigyomu/asean/asean/kokusai/siryou/dl/h19_malaysia2.pdf

Rawat, A. S. (2021, March 31). *An Overview of Descriptive Analysis.* Retrieved from Analytic Steps: https://www.analyticssteps.com/blogs/overview-descriptive-analysis

Rodrigue, J.-P., & Notteboom, T. (2022). *The Provision and Demand of Transportation Services.* Retrieved from The Geography of Transport Systems: https://transportgeography.org/contents/chapter3/provision-and-demand-of-transportation/

Rosdina, A., Kesihatan Senggarang, K., Pahat, B., Malaysia Leelavathi Muthupalaniappen, K., Azimah Muhammad, N., Sheikh Hamzah, M., Malaysia, P., & Khir Abdullah, M. (2010). *©Academy of Family Physicians of Malaysia Original Article SELF REPORTED HEARING LOSS AMONG ELDERLY MALAYSIANS.* In Malaysian Family Physician (Vol. 5, Issue 2). http://www.e-mfp.org/

Rosenbloom, S. (2011). *Driving off into the Sunset: The Implications of the Growing Automobility of Older Travelers.* Auto Motives, 173-192.

Rosli, N., Ambak, K., Shahidan, N. N., Sukor, N. S. A., & Yei, S. O. S. (2020). *Driving Behaviour of Elderly Drivers in Malaysia.* International Journal of Integrated Engineering, 12(8), 268–277. https://doi.org/10.30880/IJIE.2020.12.08.026

Safian, N., Shah, S. A., Mansor, J., Mohammad, Z., Nurumal, S. R., Ibadullah, W. A. H. W., Ahmad, S., & Shobugawa, Y. (2021). *Factors associated with the need*

for assistance among the elderly in Malaysia. International Journal of Environmental Research and Public Health, 18(2), 1–14. https://doi.org/10.3390/ijerph18020730

Sang, B., Jae, H., Jeong, H., Seung, P., & Jung, H. (2018, December 31). *Differences in youngest-old, middle-old, and oldest-old patients who visit the emergency department.* Retrieved from PubMed Central: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6301865/#:~:text=Although%20there%20are%20different%20ways,oldest%2Dold%20%5B5%5D.

Savitha, A. G. (2021, June 04). *Malaysian politicians offering free transport service to senior citizens, PWD and pregnant women to vaccination centres.* Retrieved from malaymail https://www.malaymail.com/news/life/2021/06/04/malaysian-politicians-offering-free-transport-service-to-senior-citizens-pw/1979553

Schmöcker. (2008, July). *Mode choice of older and disabled people: a case study of shopping trips in London.* Retrieved from Elsevier: https://www.sciencedirect.com/science/article/abs/pii/S0966692307000749?via%3Dihub

Schwanen, T., Dijst, M., & Dieleman, F. M. (2001). *Leisure trips of senior citizens: Determinants of modal choice.* Retrieved from ResearchGate: https://www.researchgate.net/publication/4996968_Leisure_trips_of_senior_citizens_Determinants_of_modal_choice

Shankland, C. (1973*). Klang Valley Regional Planning and Development Study. Lembah Klang (Selangor)*: Shankland Cox and Associates.

Shrestha, B. P., Millonig, A., Hounsell, N. B., & McDonald, M. (2017). *Review of Public Transport Needs of Older People in European Context.* Journal of Population Ageing, 10(4), 343–361. https://doi.org/10.1007/s12062-016-9168-9

Siiren, A., & Haustein, S. (2013). *Baby boomers' mobility patterns and preferences: What are the implications for future transport?* Transp. Policy, 136-144.

Sileyew, K. J. (2019, August 07). *Research Design and Methodology.* Retrieved from IntechOpen: https://www.intechopen.com/chapters/68505

Simplilearn. (2022, September 07). *What Is Data Collection: Methods, Types, Tools, and Techniques.* Retrieved from Simplelearn https://www.simplilearn.com/what-is-data-collection-article#data_collection_a_definition

Singh, Y. (2006). *Fundamental of ResearchMethodology and Statistics.* New Delhi: Newage International (P) Ltd.

Solecka, K., Nosal Hoy, K., & Deryło, A. (2020). *Assessment of transport interchanges for the needs of people with reduced mobility.* Travel Behaviour and Society, 21, 48–56. https://doi.org/10.1016/j.tbs.2020.05.004

Streefkerk, R. (2019, April 12). *Qualitative vs. Quantitative Research | Differences, Examples & Methods.* Retrieved from Scribbr: https://www.scribbr.com/methodology/qualitative-quantitative-research/

Su, F. (2007). *Understanding and Satisfying Older Peoples Travel Demand.* Dissertation.

Su, F., & Bell, M. (2009). *Transport for Older People: characteristics and solution.* Research in Transportation Economics, 46-55.

Sundling, C. (2016*). Overall accessibility of public transport for older adults.* Department of Psychology, Stockholm University.

Surbhi, S. (2020, July 13). *Difference Between Primary and Secondary Data.* Retrieved from KeyDifferences: https://keydifferences.com/difference-between-primary-and-secondary-data.html

Surbhi, S. (2022, July 14). *Difference Between Probability and Non-Probability Sampling.* Retrieved from Key Differences: https://keydifferences.com/difference-between-probability-and-non-probability-sampling.html

Suresha, H. (2021, February 06). *Pearson's Correlation.* Retrieved from Medium: https://medium.com/analytics-vidhya/pearsons-correlation-5664e86cf829

Taasim, S. (2020). *Ageing Population and Economic Growth: Evidence from Malaysia.* South Asian Journal of Social Studies and Economics, 11–18. https://doi.org/10.9734/sajsse/2020/v7i430196

Taber, K. S. (2018, December 01). *The Use of Cronbach's Alpha When Developing.* Retrieved from Research in Science Education.

Tavakol, M., & Dennick, R. (2011). *Making Sense of Cronbach's Alpha.* International Journal of Medical Education, 53-55.

Tobi, S. U. M., Fathi, M. S., & Amaratunga, D. (2017). *Ageing in place, an overview for the elderly in Malaysia*. AIP Conference Proceedings, 1891. https://doi.org/10.1063/1.5005434

Travels, M. (2021). *Main Page.* Retrieved from MakCik Travels: https://makciktravels.com/

Wagh, S. (2022, August 19). *Public Health Research Guide: Primary & Secondary Data Definitions.* Retrieved from Benedictine University: https://researchguides.ben.edu/c.php?g=282050&p=4036581#:~:text=Primary%2

0data%20refers%20to%20the,collected%20by%20someone%20else%20earlier.&text=Surveys%2C%20observations%2C%20experiments%2C%20questionnaire,journal%20articles%2C%20internal%20records%20e

Walker, J. (2021, August 25). *Inferential Statistics – Guide with Examples.* Retrieved from Research Prospect: https://www.researchprospect.com/inferential-statistics/

WHO. (2015). *Hearing Loss due to recreational exposure to loud sounds.* Retrieved from World Health Organisation: https://apps.who.int/iris/bitstream/handle/10665/154589/9789241508513_eng.pdf

WHO. (2017, December 12). *Mental health of older adults.* Retrieved from World Health Organizations: https://www.who.int/news-room/fact-sheets/detail/mental-health-of-older-adults

Wong, R. C. P., Szeto, W. Y., Yang, L., Li, Y. C., & Wong, S. C. (2018). *Public transport policy measures for improving elderly mobility.* Transport Policy, 63, 73–79. https://doi.org/10.1016/j.tranpol.2017.12.015

Wu, Y. J., Liu, W. J., & Yuan, C. H. (2020*). A mobile-based barrier-free service transportation platform for people with disabilities.* Computers in Human Behavior, 107. https://doi.org/10.1016/j.chb.2018.11.005

Yamane, T. (1973). *Statistics: an introductory analysis.* New York: Harper and Row.

Yin-Fah, B. C., Paim, L., Masud, J., & Hamid, T. A. (2010). *Malaysia Older Employees and Employee Provident Fund.* International Journal of Business and Management, 5(4). https://doi.org/10.5539/ijbm.v5n4p124

APPENDIX

Appendix 1.1: Survey Questionnaire
Appendix 1.1.1: Survey Cover Letter

UNIVERSITI TUNKU ABDUL RAHMAN
FACULTY OF ACCOUNTANCY AND MANAGEMENT
ACADEMIC YEAR 05/2020
MAY TRIMESTER
BACHELOR DEGREE OF BUILDING AND PROPERTY MANAGEMENT

My name is Evelynn Chan Tung Lin (18UKB06519), a final year student for bachelor's degree of Building and Property Management (HONS) from Universiti Tunku Abdul Rahman (UTAR). As a final year student, I am conducting a study on preferred transportation mode among elderly in Klang Valley. The chosen candidate is elderly above 60 years old. The purpose of this survey is to investigate the preferred transportation mode among elderly in Klang Valley. Besides, this study helps to determine the factors affecting the elderly choice in the transportation mode in Klang Valley. This project is conducted with the guidance of my supervisor, Sr. Amalina Azmi.

Fully appreciate if you can spend a few minutes to complete this questionnaire. As a guarantee, all the information collected is only strictly for academic purposes which will be kept confidential as well. This questionnaire consists of two sections. Kindly remind that all the questions need to be answer.

If there is any doubt, please do not hesitate to contact me at:
evelynn.ctl88@gmail.com

Thank you for spending your few minutes with me and also for your kind assistance.

Name	**Student ID**
Evelynn Chan Tung Lin	1806519

Survey Questionnaire

There are **TWO (2) Sections** in this questionnaire. Please answer ALL question in ALL sections. Thank you

Section A: Demographic Question

This section will collect information on the demographic profile of the respondent. Please **tick** on the box provide with only one answer.

Question 1

Gender

( ) Male

( ) Female

Question 2

Age range.

( ) 60 - 74

( ) 75 - 84

( ) 85 and above

Question 3
Are you currently staying in Klang Valley?

- Yes
- No

Question 4
What is your source of income?

- EPF savings
- Government financial assistance
- Family support
- No income
- Others

Question 5
Do you own any vehicle in Klang Valley?

- Yes
- No

Question 6
Do you possess any health condition from the following?

- Vision impairment
- Hearing impairment
- Dementia
- Depression
- Others

Question 7
Which transportation mode do you prefer the most?

- Own vehicles (Car)
- Taxis or Ride-Hailing service (GoCar, Grab)
- Bus Service
- Rail Service (LRT, MRT, KTM, Monorail, and ERL)
- Others

Section B: The factors affecting the elderly choice in transportation mode.
Instructions: This section provides a transportation mode and reason related to the preferred transportation mode among elderly in Klang Valley. The objective of this section, which is to determine reasons that influences to your choices of preferred transportation mode. Please provide your answer by choosing the not important to very important reasons that represent your opinion the most.

A) Own Vehicle (Car)

Factors	Not important	Slightly not important	Important	Very important
Cost Saving				
Convenient				
Trip Time				
Lifestyle				

B) Taxis or Ride-Hailing Service (Grab/GoCar)

Factors	Not important	Slightly not important	Important	Very important
Cost Saving				
Convenient				
Trip Time				
Lifestyle				

C) Bus Service

Factors	Not important	Slightly not important	Important	Very important
Cost Saving				
Convenient				
Trip Time				
Lifestyle				

D) Rail Service

Factors	Not important	Slightly not important	Important	Very important
Cost Saving				
Convenient				
Trip Time				
Lifestyle				

Appendix 1.1.2: Certification Letter from UTAR

UNIVERSITI TUNKU ABDUL RAHMAN DU012(A)
Wholly owned by UTAR Education Foundation Co. No. 578227-M

Re: U/SERC/198/2022

28 September 2022

Mr Low Chin Kian
Head, Department of Building and Property Management
Faculty of Accountancy and Management
Universiti Tunku Abdul Rahman
Jalan Sungai Long
Bandar Sungai Long
43000 Kajang, Selangor

Dear Mr Low,

Ethical Approval For Research Project/Protocol

We refer to your application for ethical approval for your students' research project from Bachelor of Building and Property Management (Hons) programme enrolled in course UKMZ3036. We are pleased to inform you that the application has been approved under Expedited Review.

The details of the research projects are as follows:

No.	Research Title	Student's Name	Supervisor's Name	Approval Validity
1.	A Study on Preferred Transportation Mode Among Elderly in Klang Valley	Evelynn Chan Tung Lin	Sr Amalina Azmi	28 September 2022 – 27 September 2023
2.	MM2H Programme: The Push and Pull Factors for Participants	Tan Zhi Shen	Dr Goh Hong Lip	
3.	Factors that Influence Students in Selecting Their Student Housing – A Case Study in UTAR Sungai Long Campus	Pang Wiyett		
4.	Analysing Users' and Hosts' Preference Towards Coworking Space: From the Perspective of A Real Estate Agent	Christina Choy Yee Lin	Dr Chin Hon Choong	
5.	Impact of Behavioral Biases in Property Valuation	Yoon Kang Ying		
6.	Factors Influencing Housing Purchase Decision Nearby Airport	Liew Qian Ni	Ms Nur Hafizah Binti Juhari	
7.	Analysis of the Challenges in Implementation of Artificial Intelligence in Construction	Russel Tee Hong	Ms Puteri Ameera Binti Mentaza Khan	
8.	Buying or Renting A House Among Youth in Cities	Siew Voon Ching	Ms Nurhayati Binti Md Khair	
9.	The Main Factors That Affect the Intention of Penang Citizens in Purchasing the Green Building	Lim Lu Kai	Dr Sheelah a/p Sivanathan	
10.	The Impact of Generation Z Intent to Purchase Housing Property in Klang Valley	Teoh Kee Keat		

Kampar Campus : Jalan Universiti, Bandar Barat, 31900 Kampar, Perak Darul Ridzuan, Malaysia
Tel: (605) 468 8888 Fax: (605) 466 1313
Sungai Long Campus : Jalan Sungai Long, Bandar Sungai Long, Cheras, 43000 Kajang, Selangor Darul Ehsan, Malaysia
Tel: (603) 9086 0288 Fax: (603) 9019 8868
Website: www.utar.edu.my

No.	Research Title	Student's Name	Supervisor's Name	Approval Validity
11.	Main Factors Influencing Malaysian Terraced Homeowners from Implementing Rainwater Harvesting System	Ian Low Ming Hans	Sr Dr Elia Syarafina Binti Abdul Shakur	28 September 2022 – 27 September 2023
12.	Main Factors Influence of Building Materials Price for Residential Property	Low Meng Heng		

The conduct of this research is subject to the following:

(1) The participants' informed consent be obtained prior to the commencement of the research;

(2) Confidentiality of participants' personal data must be maintained; and

(3) Compliance with procedures set out in related policies of UTAR such as the UTAR Research Ethics and Code of Conduct, Code of Practice for Research Involving Humans and other related policies/guidelines.

(4) Written consent be obtained from the institution(s)/company(ies) in which the physical or/and online survey will be carried out, prior to the commencement of the research.

Should the students collect personal data of participants in their studies, please have the participants sign the attached Personal Data Protection Statement for records.

Thank you.

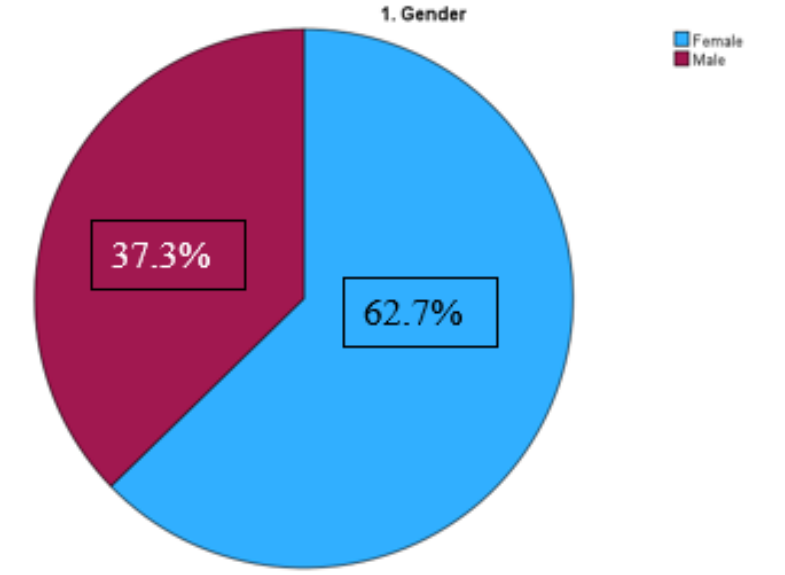
Yours sincerely,

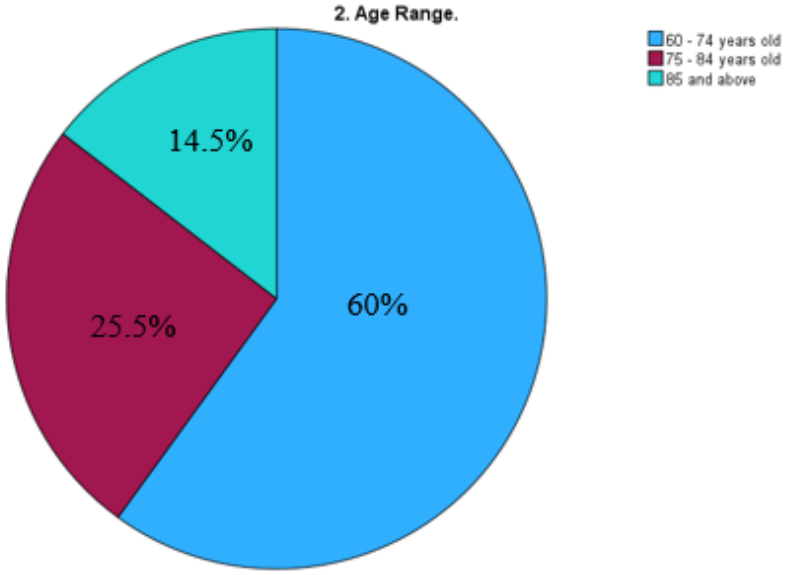
Professor Ts Dr Faidz bin Abd Rahman
Chairman
UTAR Scientific and Ethical Review Committee

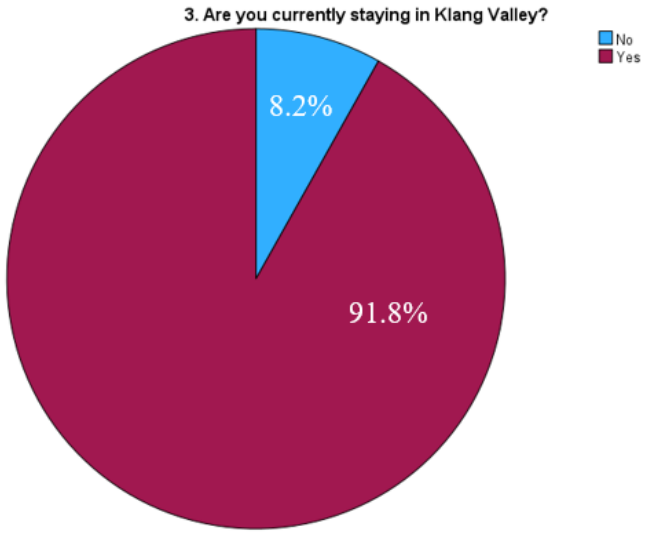
c.c Dean, Faculty of Accountancy and Management
Director, Institute of Postgraduate Studies and Research

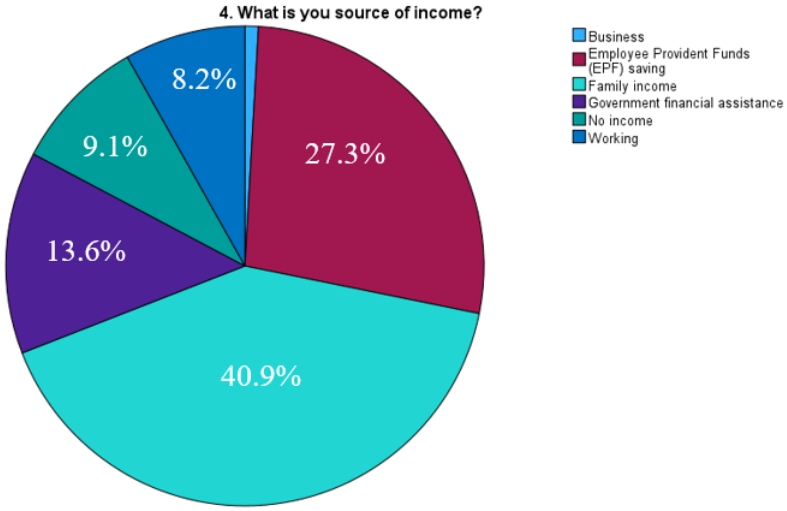
Appendix 2.1: SPSS Output

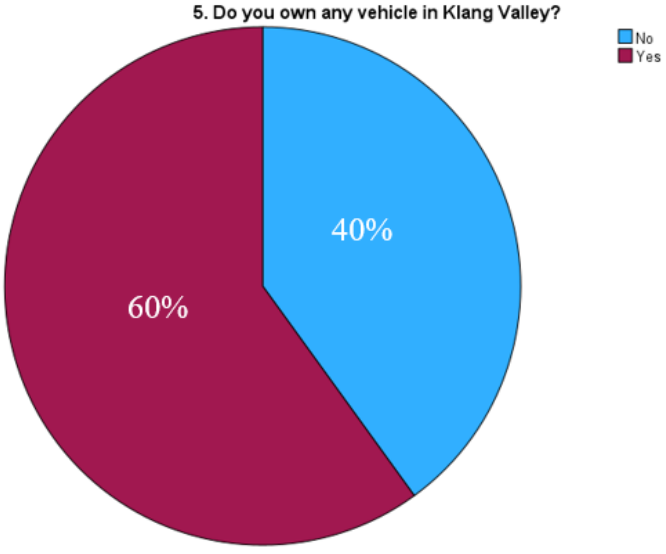
Appendix 2.1.1: Demographic Information of the Respondents

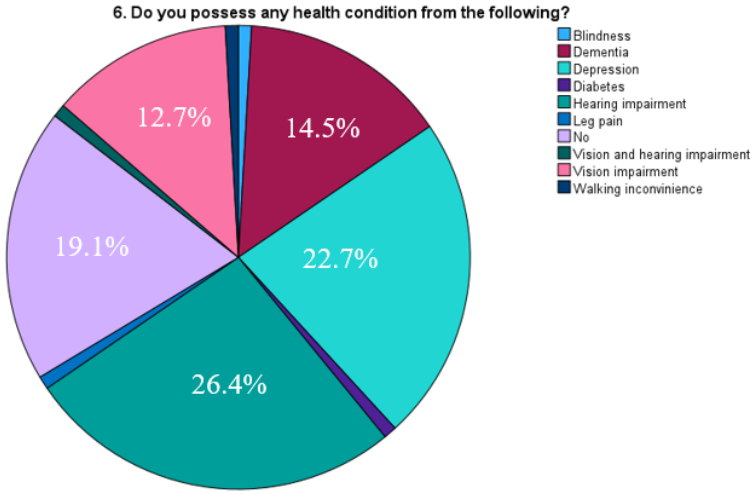





3. Are you currently staying in Klang Valley?
No
Yes
8.2%
91.8%


4. What is you source of income?
Business
Employee Provident Funds (EPF) saving
Family income
Government financial assistance
No income
Working
8.2%
27.3%
9.1%
13.6%
40.9%


5. Do you own any vehicle in Klang Valley?
No
Yes
40%
60%



Statistics

		1. Gender	2. Age Range.	3. Are you currently staying in Klang Valley?	4. What is you source of income?	5. Do you own any vehicle in Klang Valley?	6. Do you possess any health condition from the following?	7. What transportation mode do you prefer the most?
N	Valid	110	110	110	110	110	110	110
	Missing	0	0	0	0	0	0	0

1. Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	69	62.7	62.7	62.7
	Male	41	37.3	37.3	100.0
	Total	110	100.0	100.0	

2. Age Range.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	60 - 74 years old	66	60.0	60.0	60.0
	75 - 84 years old	28	25.5	25.5	85.5
	85 and above	16	14.5	14.5	100.0
	Total	110	100.0	100.0	

3. Are you currently staying in Klang Valley?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	9	8.2	8.2	8.2

	Yes	101	91.8	91.8	100.0
	Total	110	100.0	100.0	

4. What is you source of income?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Business	1	.9	.9	.9
	Employee Provident Funds (EPF) savings	30	27.3	27.3	28.2
	Family income	45	40.9	40.9	69.1
	Government financial assistance	15	13.6	13.6	82.7
	No income	10	9.1	9.1	91.8
	Working	9	8.2	8.2	100.0
	Total	110	100.0	100.0	

5. Do you own any vehicle in Klang Valley?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	44	40.0	40.0	40.0
	Yes	66	60.0	60.0	100.0
	Total	110	100.0	100.0	

6. Do you possess any health condition from the following?

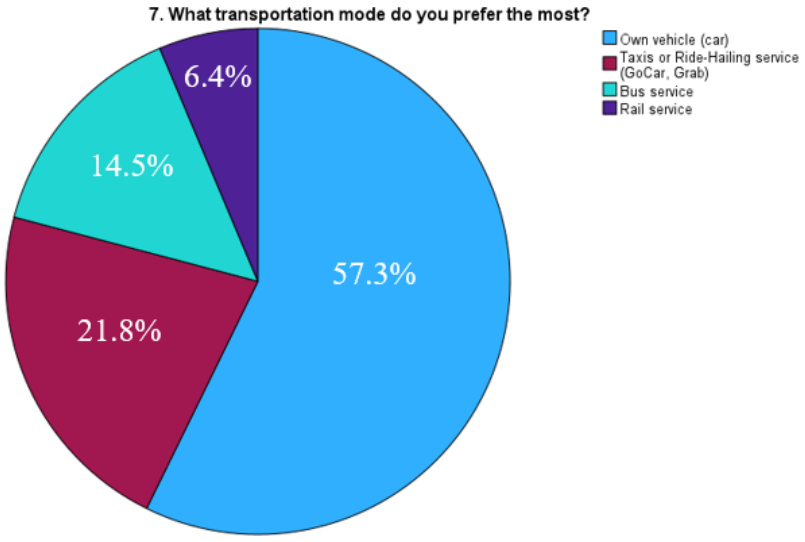
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Blindness	1	.9	.9	.9
	Dementia	16	14.5	14.5	15.5
	Depression	25	22.7	22.7	38.2
	Diabetes	1	.9	.9	39.1
	Hearing impairment	29	26.4	26.4	65.5
	Leg pain	1	.9	.9	66.4
	No	21	19.1	19.1	85.5
	Vision and hearing impairment	1	.9	.9	86.4
	Vision impairment	14	12.7	12.7	99.1

	Walking inconvinience	1	.9	.9	100.0
	Total	110	100.0	100.0	

Appendix 2.1.2: Central Tendencies Measurement of Constructs

7. What transportation mode do you prefer the most?

N	Valid	110
	Missing	0
Mean		1.70
Median		1.00
Mode		1



7. What transportation mode do you prefer the most?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bus Service	16	14.5	14.5	14.5
	Own vehicle (car)	63	57.3	57.3	71.8
	Rail Service (LRT/MRT/KTM)	7	6.4	6.4	78.2
	Taxis or Ride-Hailing service (GoCar, Grab)	24	21.8	21.8	100.0
	Total	110	100.0	100.0	

Appendix 2.1.3: Reliability Statistic for Actual Research

Case Processing Summary

		N	%
Cases	Valid	30	100.0
	Excluded[a]	0	.0
	Total	30	100.0

a. Listwise deletion based on all variables in the procedure.

Total of all items of Cronbach's alpha analysis

Cronbach's Alpha	***N of Items***	***Score***
0.854	23	Good

Section B: Transportation mode

Transportation mode	***Cronbach's Alpha***	***N of Items***	***Score***
Own Vehicle	0.868	4	Good
Taxis or Ride-Hailing Service	0.923	4	Excellent
Bus Service	0.924	4	Excellent
Rail Service	0.930	4	Excellent

Appendix 2.1.4: Descriptive Analysis for Section B

Statistics

		(SPSS) Own vehicle (Car) [Cost Saving]	(SPSS) Own vehicle (Car) [Convenient]	(SPSS) Own vehicle (Car) [Trip Time]	(SPSS) Own vehicle (Car) [Lifestyle]
N	Valid	63	63	63	63
	Missing	47	47	47	47
Mean		2.32	3.48	1.94	2.27
Median		2.00	4.00	2.00	2.00
Mode		1	4	2	1

Statistics

		(SPSS) Taxis or Ride-Hailing Service (Grab/GoCar) [Cost Saving]	(SPSS) Taxis or Ride-Hailing Service (Grab/GoCar) [Convenient]	(SPSS) Taxis or Ride-Hailing Service (Grab/GoCar) [Trip Time]	(SPSS) Taxis or Ride-Hailing Service (Grab/GoCar) [Lifestyle]
N	Valid	24	24	24	24
	Missing	86	86	86	86
Mean		2.21	3.58	2.71	1.50
Median		2.00	4.00	3.00	1.00
Mode		2	4	3	1

Statistics

		(SPSS) Bus Service [Cost Saving]	(SPSS) Bus Service [Convenient]	(SPSS) Bus Service [Trip Time]	(SPSS) Bus Service [Lifestyle]
N	Valid	16	16	16	16
	Missing	94	94	94	94
Mean		3.19	2.50	2.50	1.81
Median		4.00	2.50	3.00	1.50
Mode		4	2[a]	3	1

a. Multiple modes exist. The smallest value is shown

Statistics

		(SPSS) Rail Service (LRT/MRT/KTM) [Cost Saving]	(SPSS) Rail Service (LRT/MRT/KTM) [Convenient]	(SPSS) Rail Service (LRT/MRT/KTM) [Trip Time]	(SPSS) Rail Service (LRT/MRT/KTM) [Lifestyle]
N	Valid	7	7	7	7
	Missing	103	103	103	103
Mean		3.14	3.00	2.43	1.43
Median		3.00	3.00	2.00	1.00
Mode		4	3	2	1