

THE EFFECT OF THE SATISFACTION OF ACTIVITIES PRIOR  
AND AFTER TRAVEL EPISODES, AND THE INVOLVEMENT OF  
PEOPLE ON TRAVEL SATISFACTION

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**The Effect of the Satisfaction of Activities Prior and After Travel Episodes,  
And the Involvement of People on Travel Satisfaction**

by

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## CERTIFICATION OF APPROVAL

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A project dissertation submitted to the  
Civil & Environmental Engineering Programme  
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BACHELOR OF ENGINEERING (Hons)  
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TRONOH, PERAK

September 2020

## **CERTIFICATION OF ORIGINALITY**

This is to certify that I am responsible for the work submitted in this project, that the original work is my own except as specified in the references and acknowledgements, and that the original work contained herein have not been undertaken or done by unspecified sources or persons.



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ADRIAN WONG GUO NENG

## **ABSTRACT**

Travelling is a necessity for people in general to fulfil their needs, desires, or to participate in an activity that must be conducted in a specific location. Whenever an individual travels, there is an expectation that is set upon the traveller on the trip in which he or she wishes to fulfil. This can be defined as travel satisfaction and measures the overall level of fulfilment with the traveller's expectation. Utilizing the 2017 Bandung Metropolitan Area (BMA) dataset, this study aims to expand the research on travel satisfaction in the context of time-space approach in greater detail through the usage of bivariate analysis. This paper will investigate the bivariate analysis of socio-economic factors, travel parameters and geographical factors to travel satisfaction, as well as determining the bivariate analysis of the effect of the satisfaction of activities conduction prior and after the travel episode, and the effect of the involvement of other person on an individual's travel satisfaction. It is found that socio-demographic factors such as household size, gender, and age are significant enough to affect the travel satisfaction of individuals whilst travel companionship as well as activity satisfaction prior and after travel episodes significantly affects the travel satisfaction. It is hoped that through this study, that greater clarity on the human behaviour in travel can be observed.

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## **ABBREVIATIONS AND NOMENCLATURES**

<b>STP</b>	–	Space Time Prism
<b>SWB</b>	–	Subjective Well-Being
<b>BMA</b>	–	Bandung Metropolitan Area
<b>SPSS</b>	–	Statistical Package in Social Science

# **CHAPTER 1: INTRODUCTION**

## **1.1 Background**

Travelling is a necessity for people in general to fulfil their needs, desires, or to participate in an activity that must be conducted in a specific location. It is not humanly possible to participate in a location specific activity without travelling to the location itself. For example, to purchase fresh produces and groceries, an individual must travel via their own means, to the market or supermarket to purchase them, as the activity of shopping for said items are limited to these locations. Each traveller has their own set of constraints that inhibit and mould the travel behaviour of people; it can be summarised into three main aggregations which are ‘capability constraints’, ‘coupling constraints’ and ‘authority constraints’ (Hägerstrand, 1970). Travel behaviour, as interpreted by Fox (1995), is seen as a connector in a process of fulfilling the needs and requirements of an individual through completion of daily set of activities. He acknowledges that an individual’s daily journey is made from multiple activities completed along the route from the origin to the destination, hence forming a trip chain or circuit.

Torsten Hägerstrand was one of the pioneer researchers on the topic of time geography and space-time concept. Hägerstrand (1970, p.9) explores the niche, unexplored research between biography and aggregate statistics, whereby “people retain their identity over time, where the life of an individual is his foremost project, and where aggregate behaviour cannot escape these facts”. In the context of transport and travelling, his description can be interpreted that travel-demand modelling should focus on the detailed observations of sequences of activities conducted by individuals rather than on the combined flows of people within transportation systems. (Neutens, Schwanen, & Witlox, 2011) Time geography analysis are more sensitive in

determining accessibility and exclusion of people in society as it recognises the constraints formed in social, economic, cultural, and demographic context (Miller, What about people in geographic information science?, 2003).

The travel that is done by people are connected and dependent to the activities done prior or after the travel. Such activities are classified by the time-geography concept in two forms; they are split into fixed activities and flexible activities based on the flexibility of an individual albeit the categorization may be arbitrary depending on the context (Miller, 2005, 2017). The act of travelling itself is a supportive activity that individuals engage in for the sole purpose of arriving at their destination to satisfy their specific wants and needs (Dharmowijoyo, 2016).

The illustration of the travel path amongst activities can be highlighted via the use of the space-time prism (STP), which is an extension of the space-time concept. STP highlights the influence of the space-time anchors on the ability of individuals to participate in flexible activities (Miller, 2017). An individual's STP is shaped by their constraints and needs, but external factors (resources) may cause them to resort to a different activity-travel behaviour. Constraints inhibiting individuals in a STP not only include physical and instrumental factors (travel mode availability, time, and costs), but include non-instrumental variables as well (motivation, volition, and habits). These non-instrumental variables are harder to analyse as they are individualistic and thus differ from one person to another.

Whenever an individual travels, there is an expectation that is set upon the traveller on the trip in which he or she wishes to fulfil. This can be defined as travel satisfaction and measures the overall level of fulfilment with the traveller's expectation. Various studies have shown that travel satisfaction may have significant influences on life satisfaction and emotional well-being, and vice-versa (Rasouli & Timmermans, 2014; Schwanen & Wang, 2014; Ettema et al., 2012).

Travel satisfaction is a combined product of social, travel, and activity parameters, as well as mood, prior, during and after the travel episode, in respect to the wants and needs of the traveller and the constraints from their respective STP; STPs act as a determinant for travel satisfaction. There are some of variables that have been studied that has shown to influence the travel satisfaction of an individual, which

include geographical, contextual variables such as socioeconomic status, and activities done before, during and after travelling.

It is expected that the general mood of an individual is influenced by the past or future events in their own STP, and this will influence the judgment of their travel episode. In another way, the well-being of a traveller, be it in psychological or physical context, plays a role in influencing travel satisfaction. Rasouli & Timmermans (2014) study highlights how individual's travel party or presence of partner significantly affects travel satisfaction; travelling alone or with colleagues decreases satisfaction whilst family or partner boosts satisfaction. From this, we can see that there has been some research on the influence of other people on the travel satisfaction of an individual although more research should be done to validate the claim.

Travel satisfaction can also be affected by the purpose of the travel, as observed by Ettema et al. (2012). Schwanen & Wang (2014) study reveals the revelation that long-term contentment and happiness on momentary well-being is stronger than vice versa. In simpler terms, this means that life satisfaction significantly affects the satisfaction of activities as well as individual's well-being over a period. This is possible due to life satisfaction having bidirectional effects on travel satisfaction as well as on well-being (Schwanen & Wang, 2014). Hence, more research should be done on the satisfaction of activities done prior and after the travel episode and determine the implications of them on travel satisfaction.

## **1.2 Problem Statement**

It is normal for people to have a set expectation on their travels. However, the topic of measuring the satisfaction of the travel has been experimental, limited, and with contradicting results from different researchers. Previous studies have included some variables such as the effect of conducting activities prior and after travel in determining the travel satisfaction of users. However, as Rasouli & Timmerman (2014) study has shown, the type of activities conducted before and after the travel have been found to be insignificant on influencing travel satisfaction. Ettema et. al. (2012) study on the other hand show that while activities done during the trip adds the utility value

of the trip, travel satisfaction remains unchanged. These two studies highlight the relationship between activities done prior, during and after travel-to-travel satisfaction is not straightforward. Hence, a different perspective should be sought out to measure the travel satisfaction of travellers.

As revealed by Schwanen & Wang (2014) study, life satisfaction hypothetically does influence travel satisfaction and well-being bidirectionally. From this, we can hypothesize the satisfaction gained from activities which contributes to the life satisfaction of individuals and that the improvement of social well-being due to presence of other people may influence the travel satisfaction that comes prior or after the activity. However, Schwanen & Wang (2014) also notes that subjectively experienced well-being should not be limited to only a function of time or as in most spatial analytical research, to life satisfaction alone. At the time of this paper, there has only been limited research done on bi-variate analysis on variables that influence travel satisfaction of individuals. Below is the summary of research gaps that can be observed:

- Previous studies show that types of activities done prior, during or after the travel, by itself, has no significant effect on travel satisfaction.
- Most research focus on the episodic travel period, hence most variables are observed in the episodic duration.
- Most studies only prioritize univariate analysis on travel satisfaction in relation to an independent, single variable.

Therefore, in relation to the research gaps that have been stated above, this paper sets out to investigate and answer a few research questions in relation to travel satisfaction, which are:

- 1) What is the effect of satisfaction of activities prior and after travel to individual's travel satisfaction?
- 2) What is the effect of the involvement of other individuals on individual's travel satisfaction?

### **1.3 Objectives**

The aim of this project paper is to expand the research done on travel satisfaction via the exploration of different variables in greater detail. Previous studies have been shown to be analysed in a univariate approach which limits the scope and accuracy of the results obtain and thus, a bivariate approached will be used instead. The objectives that have been set out by this research project to answer the previously mentioned research questions are as follows:

1. To determine the bivariate analysis of socio-economic factors, travel parameters and geographic factors to travel satisfaction.
2. To determine the bivariate analysis of the effect of satisfaction of activities, prior and after travel episodes, and the effect of the involvement of other people on an individual's travel satisfaction.

### **1.4 Scope of Study**

This research paper addresses if the level of satisfaction of activities conducted prior and after travel, affects the travel satisfaction of travelling individuals as well as if the effect of travel companionship influences travel satisfaction. The travel experience can either be enhanced or degraded based on the activity satisfaction conducted prior or after the travel period as well on the presence of travel companionship.



## **CHAPTER 2: LITERATURE REVIEW**

### **2.1 Space Time Prism**

Time geography is an ecological theory that was first conceived by Professor Torsten Hägerstrand and considers the interaction between individuals and individual with groups. It is a constraints-orientation approach in observing individuals' activities in space and time and treats people as individuals with their own personality and identities, rather than as an aggregate of data. Time geography recognizes that people have spatial and temporal limitations which limit people to be physically available in one place at a time, while activities can only be done in specified locations at specific times; travel is done when an activity cannot be done within a particular location an individual is currently located at (Miller, 2017). Every individual has their own available free time for them to conduct activities and travel and is defined as their time budget. Time budget typically describes the sequence, timing, and duration of an individual's activities for a short period of time (Fox, 1995).

Time geography focuses on analysing and assessing the freedom of actions of people, given various space and time constraints rather than predicting on people's travel behaviour and patterns directly (Neutens et al.,2011). There are three major types of constraints that can be observed via time geography that places limitations on human activities. These are capability constraints, coupling constraints and authority constraints (Hägerstrand, 1970; Miller 2017). Hägerstrand (1970, p.12, p.14) defined capability constraints as the limitations of individuals due to their biological construction or the resources that an individual can utilize while coupling constraints is defined as "how long an individual has to join other individuals, tool, and materials in order to produce, consume, and transact". Authority constraints are defined as flat restrictions over a time-space control area or domain, and these domains restrictions

are enforced by institution or authorities with control over the spatial domain. These constraints, however, are interrelated rather than additive to each other (Neutens et al., 2011).

Under time geography, there are two main forms of activities conducted by people: activities that are temporally and spatially fixed, and activities with high degree of negotiation. These activities are classified via the flexibility of individuals to conduct them. Every individual's activity must be done in a particular location or space and participation in such activities requires utilizing the time budget an individual to trade off time for space via travelling. This can be easily illustrated using a space-time path, as shown below.

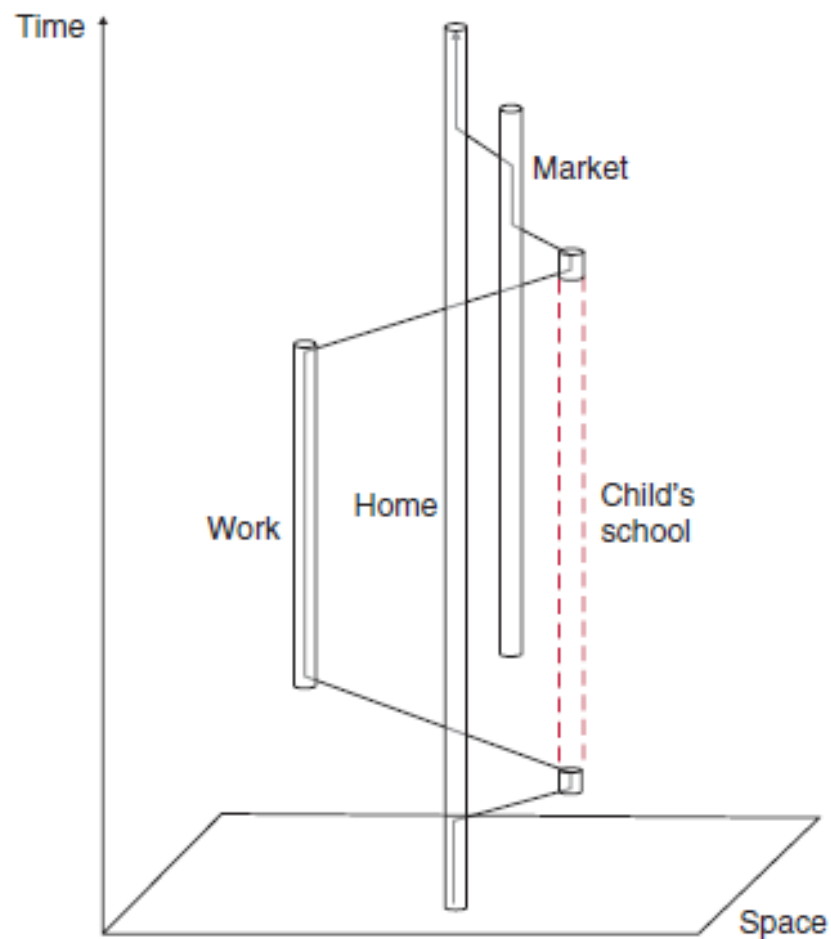


Figure 2.1 Space-time path among activity stations

Activities are considered fixed if the activities are unable to be conducted or participated in another space or location while being limited to a fixed time (Neutens

et al., 2011). Activities with fixed timings, such as working and studying in school have more consistency of travel patterns compared to leisure activities with flexible timings and generally become space-time anchors in which travel operates between.

The space-time prism is an extension of the time geography concept and highlights the influence of space-time anchors on the ability of individuals to participate in flexible activities (Miller, 2017). In a space-time prism, vertical lines represent individuals where they are standing stationary over a time whilst sloped lines represent them travelling over space within their time budget, the greater the slope of the line, the faster the travel speed of the individual. The spatial footprint of the STP, which covers the space whereby an individual can potentially travel to, is represented as the potential path area (PPA), as shown in the figure below:

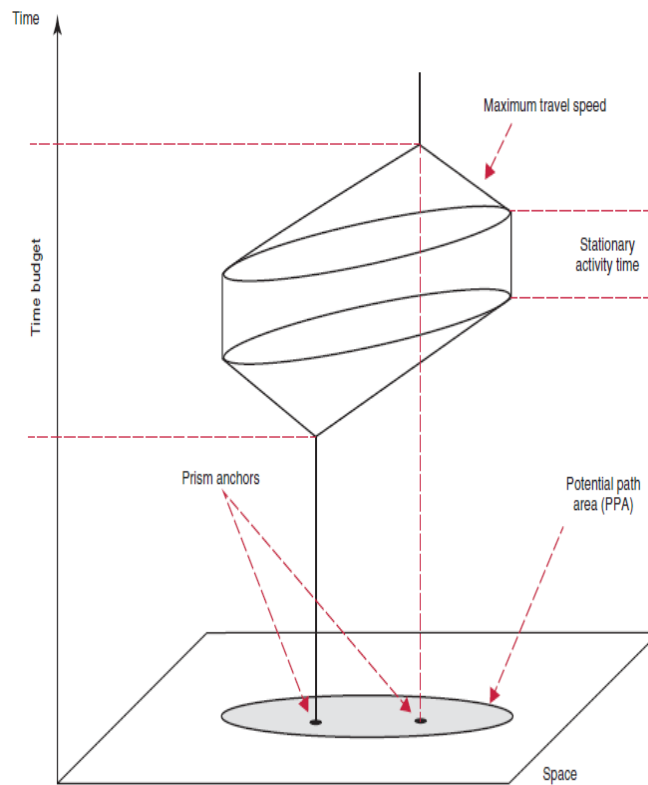


Figure 2.2 Space-Time Prism (STP) showing the Potential Path Area (PPA)

Every individual has their own wants, needs and constraints which vary every day; therefore, space-time prisms and paths differ from one person to another, on a day-to-day basis; it can be said that STP are unique and highly individualistic in nature. STP are capable to measure the travel satisfaction via its people-based perspective of analysis.

## 2.2 Linkage Between Individual's Well-Being and Travel Satisfaction

Subjective well-being (SWB) is defined as the satisfaction of individuals with affective component of their life (emotional well-being) which include emotional experiences of episodes over periods of time, and cognitive component, which evaluates life satisfaction (Ettema et al., 2012). In another way, well-being can be defined into two different perspectives; hedonic which views well-being in terms of pleasure experienced and displeasure avoided, and eudemonic which views well-being in terms of flourishing, realizing one's true potential, leading a meaningful life, and acting in accordance with one's goals (Schwanen & Wang, 2014). Ettema et al., (2012) uses an adaptation of cognitive and affective subjective well-being scaled to the travel domain which is derived from the core affect approach (Russell, 1980, 2003). Their scale measures subjective well-being via 2 dimensions, valence, and activation. Schwanen & Wang (2014) draws inspiration from Ettema et al. (2012) and Russell (1980, 2003) to form the illustrated below that presents the emotional states an individual can be in.

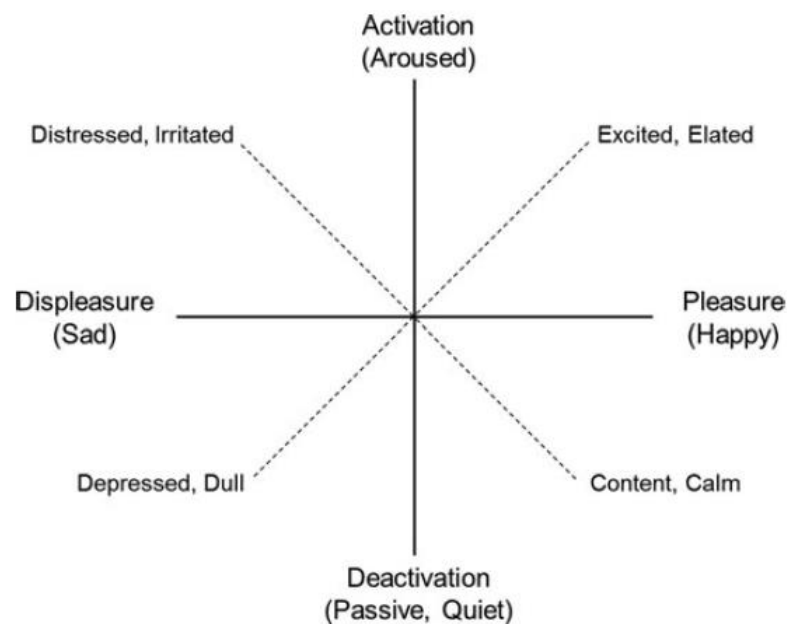


Figure 2.3 Core Affects Scale

There have been a few studies to date which have observed the relation of well-being to the effect of travel satisfaction of travellers. Most notably, Schwanen & Wang (2014) study reveals how the dispositional impact from long to short term well-being is stronger than the combined effect from momentary well-being of an activity to life

satisfaction. They found that the effect of satisfaction on day experience is stronger than that on an episode well-being. This shows that travel satisfaction is more likely affected by the overall life satisfaction of the day, rather than during the travel itself. This is supported by Ettema et al., (2012) study which observes that the relationship between activities during travel and travel satisfaction are not straightforward as originally thought to be. They note that activities done during the trip does not make the trip more satisfying but allows greater satisfaction in other life domains at a different time. The type of activities that were conducted prior or after the travel episode does not seem to have a significant effect on the travel satisfaction as well (Rasouli & Timmermans, 2014).

It is noted that the presence of other people does have an influence on the satisfaction of travel episodes, albeit it varies on a case-by-case basis. In Rasouli & Timmermans (2014) study, they found notable influence of travel party on the level of travel satisfaction; the presence of an individual's children or spouse boosts positive judgements of the trip, with friends and family having lower positive boosts whereas travelling alone or with work colleagues significantly decreases the level of satisfaction. It is noted however that their study is conducted on public transport users, hence the results may not represent all travel users. More research should be done on this topic to determine if other modes of transport have the same effect.

In Schwanen & Wang (2014) case, travel satisfaction is indirectly influenced by the well-being improvement from social contacts over short and long period to life satisfaction of an individual. Their study found that when undertaking activities with people, people who are relatively close to the individual (family and spouses) are more likely to produce higher levels of momentary well-being compared to those who are not (friends or acquaintances). However, their model also shows that the well-being benefits with friends are more duration dependant than those with family or spouses. This highlights the importance of including long term and short-term well-being over time when analysing the effect of companionship to individual's satisfaction. Further investigation should be undertaken to validate the results achieved by the studies above, especially in measuring the effect of activity satisfaction prior and after travelling to travel satisfaction, with the influence of companionship.

## **CHAPTER 3: METHODOLOGY**

### **3.1 Project Flowchart**

The project flowchart of this methodology will illustrate the set of phases the research will undergo in a step-by-step process until completion. There are six milestones that the project has, and it is vital that the research is executed in the sequence as shown below to ensure that every aspect of this research is fully covered with the best quality of work possible and within schedule.

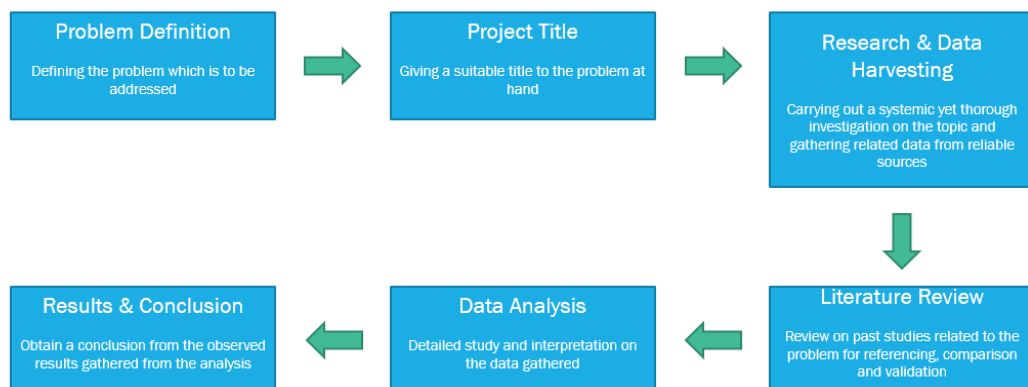


Figure 3.1 Project Flowchart

### **3.2 Methods of Information Gathering**

In this research project, multiple resources have been cited and referred to from trusted sources to gather, validate and refer to information on the topic on hand, especially in the creation of the literature review as well as increasing my understanding on the problem statement at hand. Most of the journals and articles used in my study has been reviewed and approved by my supervising lecturer prior to usage to ensure only trustable sources are utilized.

### 3.3 Research Methodology

Research methodology is defined as specific steps or techniques used to pinpoint, select, process, and analyse the data related to the topic at hand. The research methodology can be split into three parts, which are data harvesting, data input, and data interpretation and analysis, as illustrated below:

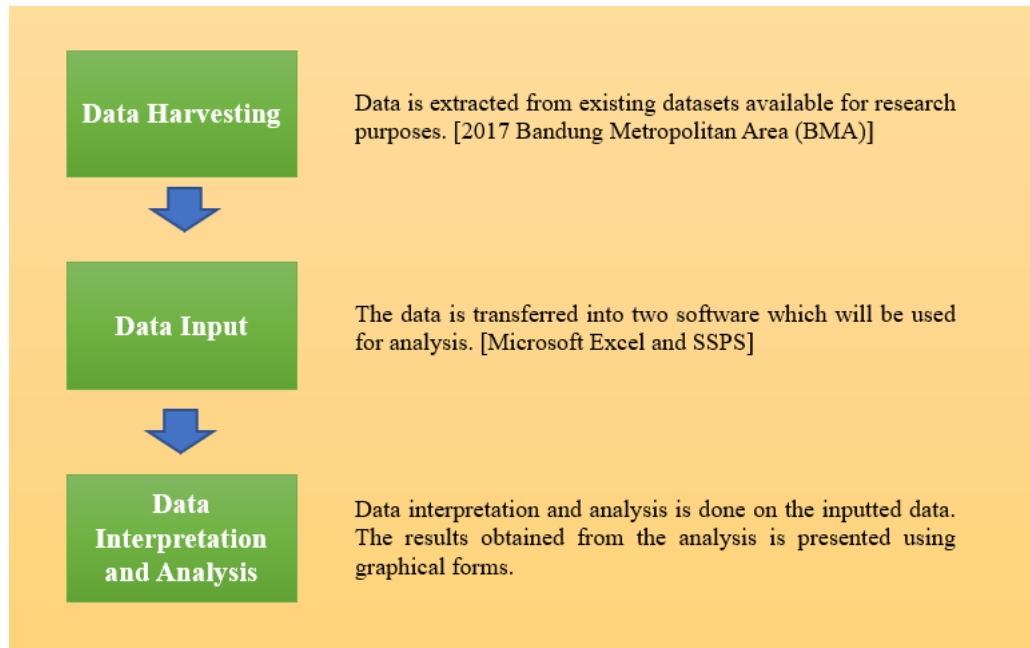


Figure 3.2 Research Methodology Process

#### i. Data Harvesting

The dataset that will be used and extracted from is sourced from one survey dataset, which is the 2017 Bandung Metropolitan (BMA) dataset.

The data in this dataset was collected for 7 days consecutively, starting from 22 May 2017 until 28 May 2017, and involves 332 individual respondents. The questionnaire was created in Bahasa Indonesia as the participants of the survey were all local Indonesians. As Indonesia does not have a well-developed documentation system as other developed countries have, information gathering is done via direct interaction with potential respondents. No respondents can stop reporting in their information before the survey is completed as an agreement has been signed between the surveyors and the respondents. There are 3 types of surveys that were conducted to respondents, which are Household Survey, Diary Survey, and Retrospective Survey.

The data that was harvested from the survey can be categorised into three distinct groups of data, which are individual and household data, activity-travel diary, and well-being and health data (as illustrated in Table 3.1)

Household Survey consists of the respondents' household information and involves the following:

- a. Composition of Household
- b. Accommodation
- c. District of Accommodation
- d. Access to Internet
- e. Modes of Transportation
- f. Household Income

During the process of this survey, the respondents are assisted by the surveyor so that the respondents can easily answer each of the asked questions. Through this survey, information regarding to socio-demographic characteristics as well as built environment and perceived accessibility can be obtained.

Activity-travel diary data, which is the second category of data, records the duration of time used by respondents on different categories of activities. From the Diary Survey, each activity for all respondents is recorded in 15-minute intervals for 24-hours and is repeated for 7 consecutive days. As the data is recorded in 15-minute intervals, there shall be 96 divisions of time per day for respondents to fill in their activities.

There are 25 different types of activities which can be grouped into two main groups, with the first being mandatory activities that require the respondent to be spatially and temporally fixed in a specific location with the objective to fulfil basic needs such as sleeping, eating, and studying. The second group of activities can be defined as discretionary activities which can be split into two separate subcategories which are leisure activities and maintenance activities. Leisure activities satisfies the individual's demands for cultural and physiological needs via activities such as listening to music, reading, and watching movies, while maintenance activities satisfy the individual's demands for biological and physiological needs via activities such as health check-ups or housekeeping. All the activities mentioned above can be further



grouped into out-home categories and in-home activities, dependent on the location the activity is conducted. This is illustrated as shown in the figure below:

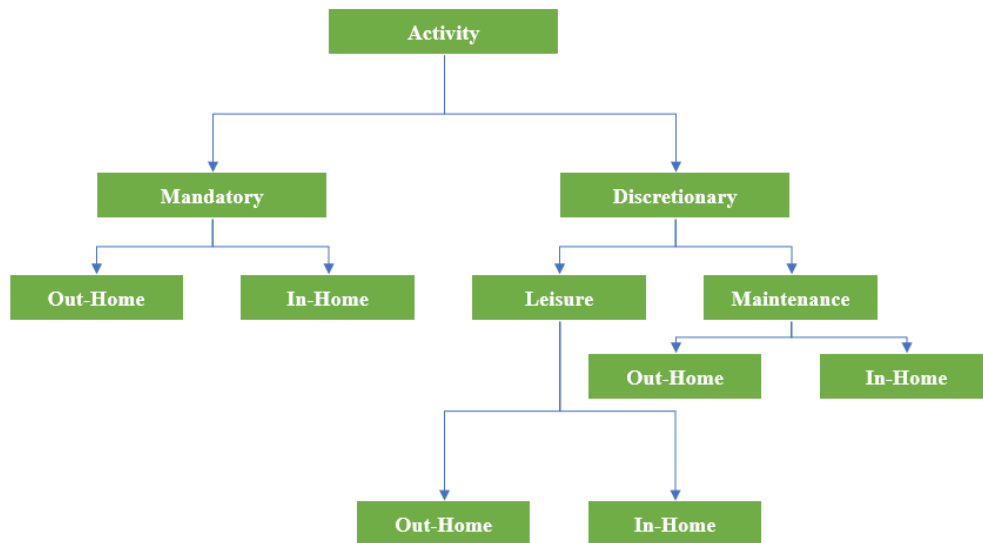


Figure 3.3 Categorisation of Activity Groups

As the respondent will be involved in travelling as well, they are required to record down their mode of transport during such travel episodes. Codes for each criteria of activity as well as mode of transport are explained to the respondents. Through this survey, day-to-day time use and activity participation and the use of private vehicles.

Lastly, the last group of data, which is well-being and health data, comprises on the respondents' individually reported well-being and health status. These data are obtained from the Retrospective Survey. The health condition for each one of the respondents are evaluated in three different groups, which are physical health, mental health, and social health. Also in the survey are information regarding to individuals' biography of mobility through their lifetime (for a period of 20 years, from 1997 to 2016), related to their household, ownership of vehicles, and mode of transport. Through the Retrospective Survey, mechanistic lifestyle factors (well-being and health data) as well as mobility biography can be obtained.

Table 3.1 Tabulated Types of Data that have been Harvested

Data Type	Characteristics of Data
Individual and Household	<ol style="list-style-type: none"> <li>1. Gender <ul style="list-style-type: none"> <li>➤ Less than 20 years old</li> <li>➤ 20-60 years old</li> <li>➤ Greater than 60 years old</li> </ul> </li> <li>2. Age <ul style="list-style-type: none"> <li>➤ Male</li> <li>➤ Female</li> </ul> </li> <li>3. Occupation <ul style="list-style-type: none"> <li>➤ Government Officer</li> <li>➤ Non-Government Officer</li> <li>➤ Business / Service Employee</li> <li>➤ Self-Employed</li> <li>➤ Student</li> <li>➤ Unemployed</li> <li>➤ Others</li> </ul> </li> <li>4. Size of Household <ul style="list-style-type: none"> <li>➤ Individual</li> <li>➤ Less than 5 people</li> <li>➤ 5-10 people</li> <li>➤ Greater than 10 people</li> </ul> </li> <li>5. Condition of Household <ul style="list-style-type: none"> <li>➤ 0 Disabled person / Individual with special needs</li> <li>➤ 1 Disabled person / Individual with special needs</li> <li>➤ More than 1 Disabled person / Individual with special needs</li> </ul> </li> <li>6. Accommodation Type <ul style="list-style-type: none"> <li>➤ Landed</li> <li>➤ Non-Landed</li> </ul> </li> <li>7. Accommodation Ownership <ul style="list-style-type: none"> <li>➤ Full Ownership</li> <li>➤ Rental</li> </ul> </li> </ol>

	<p>8. Access of Public Facilities</p> <ul style="list-style-type: none"> <li>➤ None</li> <li>➤ Less than 1km</li> <li>➤ 1-5 km</li> <li>➤ More than 5km</li> </ul> <p>9. Vehicle Ownership</p> <ul style="list-style-type: none"> <li>➤ Yes</li> <li>➤ No</li> </ul> <p>10. Individual / Household Income</p>
<p>Activity- Travel Diary</p>	<p>1. Working Days per Week</p> <ul style="list-style-type: none"> <li>➤ Less than 5 days</li> <li>➤ 5 Days</li> <li>➤ More than 5 days</li> </ul> <p>2. Working Hours per Week</p> <ul style="list-style-type: none"> <li>➤ Less than 8 hours</li> <li>➤ 8 – 10 hours</li> <li>➤ More than 10 hours</li> </ul> <p>3. Frequency of Grocery Shopping Trip</p> <ul style="list-style-type: none"> <li>➤ Once a Week</li> <li>➤ Twice a Week</li> <li>➤ More than twice a Week</li> </ul> <p>4. Frequency for Mandatory Out-of-Home Activities</p> <ul style="list-style-type: none"> <li>➤ Regular</li> <li>➤ Moderate</li> <li>➤ Rarely</li> </ul> <p>5. Frequency for Mandatory In-Home Activities</p> <ul style="list-style-type: none"> <li>➤ Regular</li> <li>➤ Moderate</li> <li>➤ Rare</li> </ul> <p>6. Frequency of Leisure Activities</p> <ul style="list-style-type: none"> <li>➤ Regular</li> <li>➤ Moderate</li> </ul>

	➤ Rare
Well-being and Health	<ol style="list-style-type: none"> <li>1. BMI Index <ul style="list-style-type: none"> <li>➤ Underweight</li> <li>➤ Normal</li> <li>➤ Overweight</li> </ul> </li> <li>2. Physical Functioning</li> <li>3. Social Functioning</li> <li>4. Emotional Functioning</li> <li>5. Energy Level / Fatigue</li> <li>6. General Health</li> </ol>

## ii. Data Input

Once the data has been harvested from the dataset, the information required by this research paper will be transferred and input into two different software, which are Microsoft Excel and Statistical Package in Social Science (SPSS) Software.

SPSS is different from Microsoft Excel in that it is a specialized data management software package that is widely used for interactive, batch and statistical analysis. SPSS has a wider variety of tools to visualise the data in graphical presentations which can be used for reporting, publications and presentations compared to Excel.

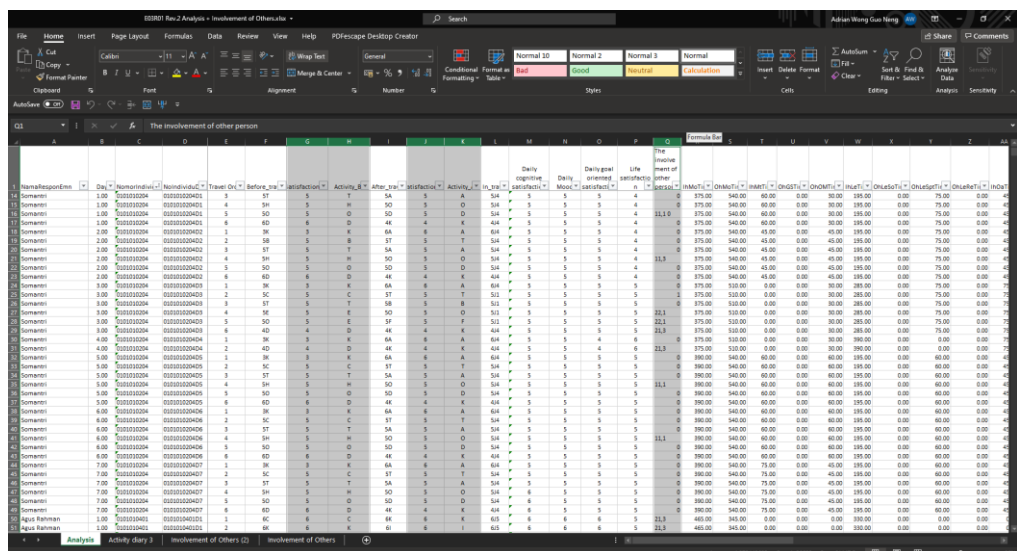


Figure 3.4 Data input using Microsoft Excel

	B22_45	B46_55	DCHLD	PH	Records_HH	LI	MI	PH_Inc	Non_workers2	Workers	Students	Occupation	Mean_Satisfaction
1	0	0	0	4	1.0	1	0	0	0	1	0	2	6.00
2	0	0	0	4	1.0	1	0	0	0	1	0	2	6.00
3	0	0	0	4	1.0	1	0	0	0	1	0	2	6.00
4	0	0	0	4	1.0	1	0	0	0	1	0	2	6.00
5	0	0	0	4	1.0	1	0	0	0	1	0	2	6.00
6	0	0	0	4	1.0	1	0	0	0	1	0	2	6.00
7	0	0	0	4	1.0	1	0	0	0	1	0	2	6.00
8	0	0	0	4	1.0	1	0	0	0	1	0	2	6.00
9	0	0	0	4	1.0	1	0	0	0	1	0	2	6.00
10	0	0	0	4	1.0	1	0	0	0	1	0	2	6.00
11	0	0	0	4	1.0	1	0	0	0	1	0	2	6.00
12	0	0	0	4	1.0	1	0	0	0	1	0	2	6.00
13	0	0	0	4	1.0	1	0	0	0	1	0	2	6.00
14	0	0	0	4	1.0	1	0	0	0	1	0	2	6.00
15	0	0	0	3	1.0	1	0	0	0	1	0	2	6.00
16	0	0	0	3	1.0	1	0	0	0	1	0	2	6.00
17	0	0	0	3	1.0	1	0	0	0	1	0	2	6.00
18	0	0	0	3	1.0	1	0	0	0	1	0	2	6.00
19	0	0	0	3	1.0	1	0	0	0	1	0	2	6.00
20	0	0	0	3	1.0	1	0	0	0	1	0	2	6.00
21	0	0	0	3	1.0	1	0	0	0	1	0	2	6.00
22	0	0	0	3	1.0	1	0	0	0	1	0	2	5.00
23	0	0	0	3	1.0	1	0	0	0	1	0	2	6.00
24	0	0	0	3	1.0	1	0	0	0	1	0	2	6.00
25	0	0	0	3	1.0	1	0	0	0	1	0	2	6.00
26	0	0	0	3	1.0	1	0	0	0	1	0	2	6.00
27	0	0	0	3	1.0	1	0	0	0	1	0	2	6.00
28	0	0	0	3	1.0	1	0	0	0	1	0	2	5.00
29	0	0	0	3	1.0	1	0	0	0	1	0	2	6.00
30	0	0	0	3	1.0	1	0	0	0	1	0	2	6.00
31	0	0	0	3	1.0	1	0	0	0	1	0	2	6.00
32	0	0	0	3	1.0	1	0	0	0	1	0	2	5.50
33	0	0	0	3	1.0	1	0	0	0	1	0	2	6.00
34	0	0	0	3	1.0	1	0	0	0	1	0	2	5.50
35	0	0	0	3	1.0	1	0	0	0	1	0	2	6.00
36	0	0	0	3	1.0	1	0	0	0	1	0	2	6.00
37	0	0	0	3	1.0	1	0	0	0	1	0	2	6.00

Figure 3.5 Snippet of SPSS Software Data Input

### iii. Data Interpretation and Analysis

Once the data has been inputted into the two-software mentioned earlier, the interpretation process may begin. The objective of this process is to expand the current knowledge and understanding on the findings via the results observed from the data extracted. Using the tools available to us, we will be able to sort out key data that is necessary for us to achieve the objective of our research. Once the data sorting and interpretation is done, data analysis can be done., All the data will be analysed via the usage of the Statistical Package for Social Scientist (SPSS) software, and descriptive analysis will be the mode of analysis that will be conducted. This is because descriptive analysis will enable us to describe the effect of bivariate analysis of multiple variables towards travel satisfaction. It is expected that a conclusion can be made on the relationship between activity satisfaction prior and after travel-to-travel satisfaction, as well as the relationship between travel companionship to travel satisfaction be made.

### 3.4 Key Milestones

Gantt Chart for FYP1 and FYP2 Project Timeline.

NO.	RESEARCH ACTIVITIES	SEPTEMBER 2020 SEMESTER (FYP I)												
		W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	
1	Selection of Project Topic	█												
2	Preliminary Research Work		█											
3	Background Study			█	█									
4	Outline Problem Statement and Objectives				█	█	█	█						
5	Literature Review on Fundamentals of Study					█	█	█	█	█				
6	Literature Review on Modern Approaches						█	█	█	█	█			
7	Proposal Defense									█				
8	Outline Research Methodology									█	█	█	█	
9	Research Studies on Survey Dataset											█	█	
10	Interim Draft												█	
11	Interim Report Submission													█

Table 3.2 Gantt Chart for FYP1

NO.	RESEARCH ACTIVITIES	JANUARY 2021 SEMESTER (FYP II)														
		W1	W2	W3	W4	W5	W6	W7	W8	W9	W10	W11	W12	W13	W14	W15
1	Project Work Continues	█	█	█	█	█	█	█	█	█	█	█	█			
2	Data Harvesting and Input	█	█													
3	Data Interpretation and Analysis			█	█	█	█	█	█	█						
4	Draft Dissertation Submission (Soft Bound)									█	█					
5	Viva Presentation												█			
6	Final Dissertation Submission (Hard Bound)															█

Table 3.3 Gantt Chart for FYP2

## CHAPTER 4

### RESULTS AND DISCUSSION

#### 4.1 Summary of Data from the BMA Dataset

As the 2017 BMA dataset includes a large quantity of multi-dimensional information which include household data, activity-travel diary, travel satisfaction as well as individuals' subjective wellbeing, the data must be filtered and summarized for ease of understanding and analysis. Shown below is the table of data which filters the necessary data and shows the profile of the dataset.

Table 4.1 2017 BMA Dataset Profile

Variables	Percentage / Means
<b>Gender</b>	
Male	50.54%
Female	49.46%
<b>Respondent Occupation</b>	
Student	24.64%
Worker	44.39%
Non-Student / Non-Worker	30.96%
<b>Age</b>	
Below 22 Years Old	7.53%
23 – 45 Years Old	56.99%
46 – 55 Years Old	26.88%
Above 56 Years Old	8.60%

<b>Household</b>	
Small Household (Less than 5 people)	61.25%
Big Household (5 or more people)	38.75%
Average No. of Household Members	4.38
<b>Income Level</b>	
Lower Income	77.42%
Middle Income	22.58%
<b>Travel Data</b>	
Average No. of Travels per Day	7.61
Average Travel Time	114.13 Mins
Average Male Travel Satisfaction	5.54
Average Female Travel Satisfaction	5.62
Average Overall Travel Satisfaction	5.51
Average In-Home Activity Satisfaction Before Travel	5.515
Average Out-Home Activity Satisfaction Before Travel	5.504
Average In-Home Activity Satisfaction After Travel	5.548
Average Out-Home Activity Satisfaction After Travel	5.477
Percentage of Using Car	11.29%
Percentage of Using Motorcycle	58.92%
Percentage of Using Public Transport	8.40%
Percentage of Using Taxi and Ojek Online	0.37%
Percentage of Using Bicycle	0.25%
Percentage of Walking	20.78%
<b>Population Density</b>	
Low Density	47.50%
High Density	52.50%
<b>Locality</b>	
Close to City Centre	45.03%
Far to City Centre	54.97%
<b>Built Environment and Perceived Accessibility</b>	
Perceived Travel Time to City Centre	30.46 min
Perceived Travel Time to Bank/ Post Office	10.16 min



Perceived Travel Time to Pre-School	5.05 min
Perceived Travel Time to Kindergarten	5.65 min
Perceived Travel Time to Elementary School	7.14 min
Perceived Travel Time to Junior/ Senior High School	9.82 min
Perceived Travel Time to Hospital	18.61 min
Perceived Travel Time to Station	33.91 min
Perceived Travel Time to Bus Stop	15.86 min
Perceived Travel Time to Supermarket	7.44 min
Perceived Travel Time to Traditional Market	8.44 min
Perceived Travel Time to Park	17.16 min
Perceived Travel Time to Government Office	12.22 min
Perceived Travel Time to Shopping Centre	15.92 min
Perceived Number of Public Transportation	2.82
<b>Involvement of Travel Companions</b>	
Alone	65.74%
Direct & Extended Family	18.28%
Co-workers	8.19%
Friends	7.78%

## 4.2 Descriptive Analysis

### i. Socio-Demographic

As it is known that every individual has their own subjective wellbeing as well as their own travel behaviour. Each individual respondents' subjective satisfaction of their travel activities is rated and recorded. The distribution of their travel satisfaction in a seven (7) day period can be seen in the figure below:

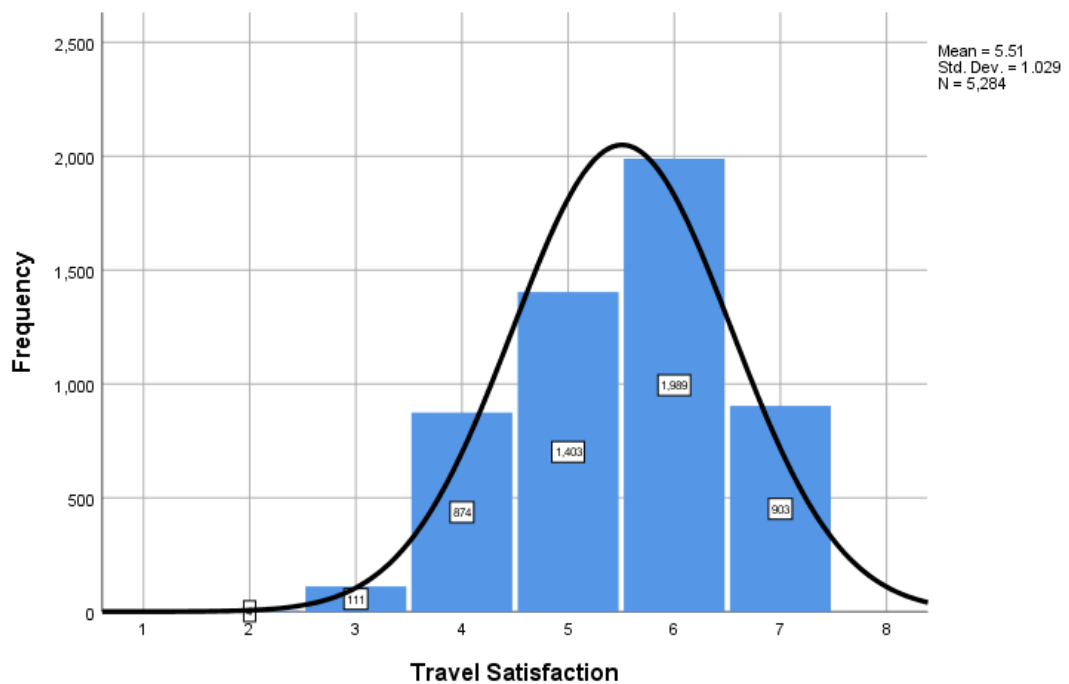


Figure 4.1 Histogram of Overall Travel Satisfaction

The grading scale of the travel satisfaction is a one (1) to seven (7) scale, with the grading of one representing a very low travel satisfaction while a grading of seven representing a very high travel satisfaction.

The average overall travel satisfaction of the respondents out of the 5,284 total respondent data collected is 5.51 out of a maximum of 7 points, with a standard deviation of 1.029 points.

It can be observed that the overall travel satisfaction is rated positively (greater than a grading of four [4] which is a neutral rating) with a slight minority having a negative rating of their travel satisfaction.

With the travel satisfaction data that has been obtained, the data is then filtered by Gender to see the difference between travel satisfaction by gender. This can be seen in Figure 4.2.

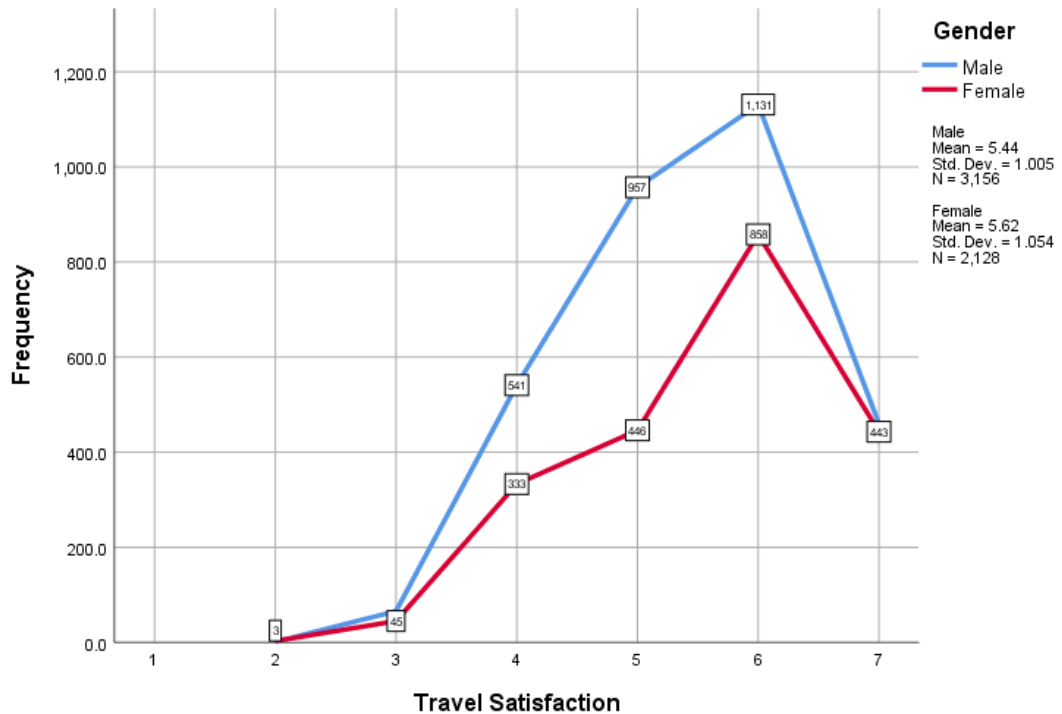


Figure 4.2 Average Travel Satisfaction of Male & Female Respondents

It is observed that the mean travel satisfaction of female respondents is higher than male respondents, with a mean of 5.62 for the former and 5.44 with the latter. However, the standard deviation for females is shown to be higher (1.054) versus males (1.005)

The mean travel satisfaction is compared with socio-demographic variables which include Occupation, Income Level, Household Size, Gender, and Age, as shown in Figure 4.3 and Figure 4.4.

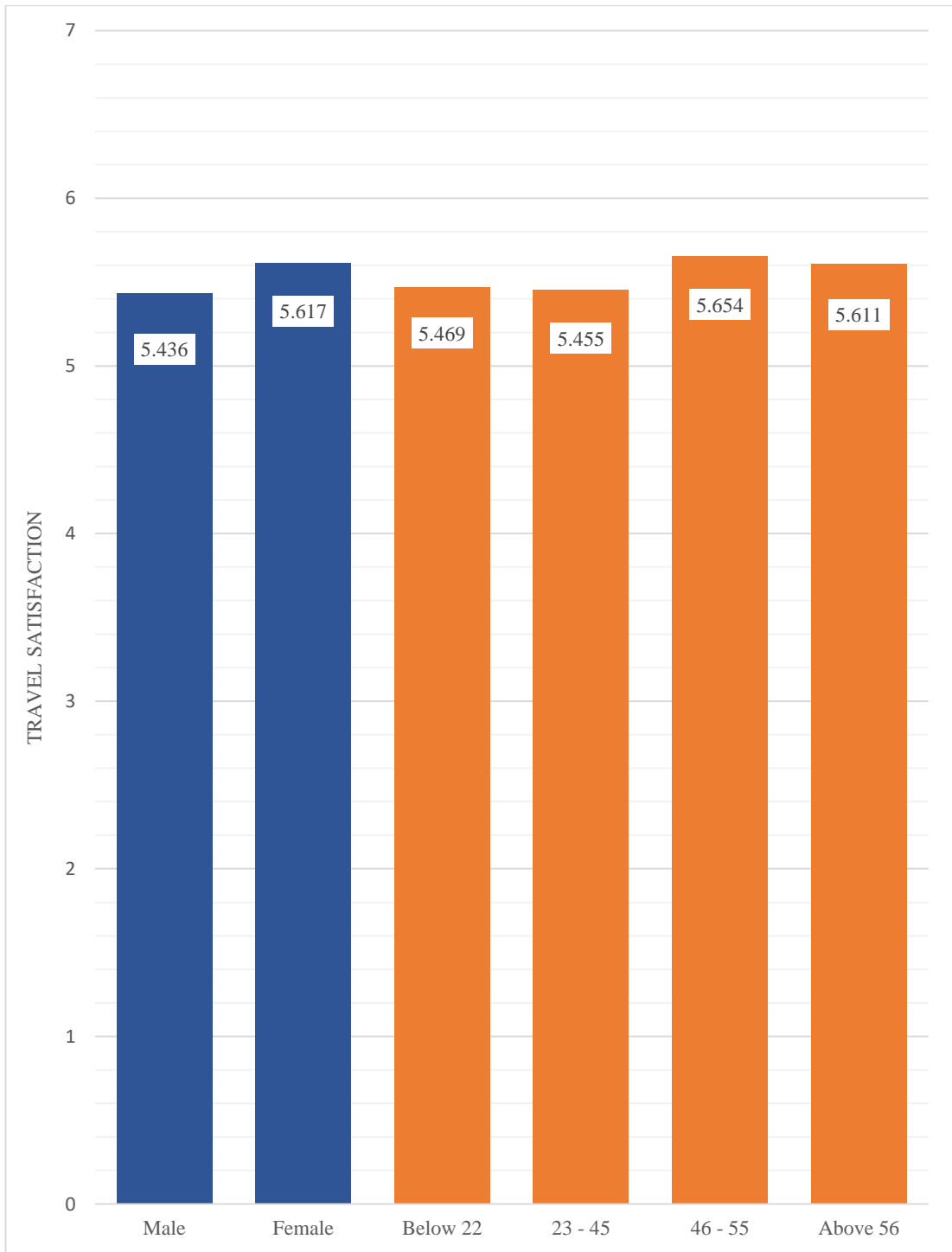


Figure 4.3 Comparison of Travel Satisfaction with Socio-Demographic Background

(1)

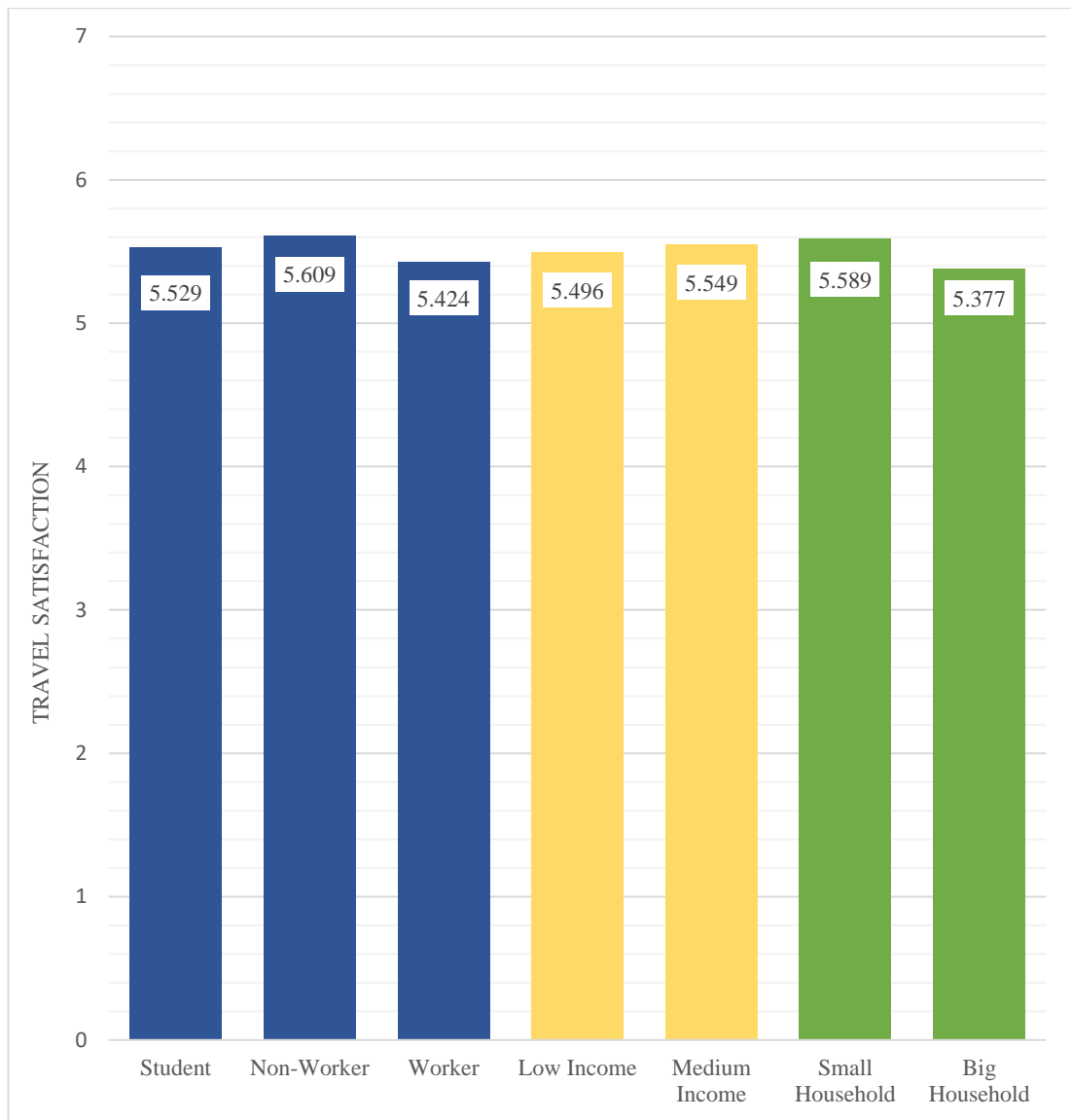


Figure 4.4 Comparison of Travel Satisfaction with Socio-Demographic Background  
(2)

As we have seen in prior observations, we can see in the graph in Figure 4.3 that the mean travel satisfaction of female respondents is generally higher than male respondents. Respondents aged between 46 to 55 years old showed the highest travel satisfaction compared to other age groups, with those aged between 23 to 45 years old having the lowest. In Figure 4.4, we can see that Non-Workers have the highest travel satisfaction compared to Students and Workers. This can be inferred that Non-Workers have less responsibilities or worries compared to Students or Workers which results in them having higher travel satisfaction.

In terms of Income Level, we can see that those with Medium Income have higher travel satisfaction than Low Income groups. This may be because that those with Medium Income can afford to have better transportation options than those with Low Income. Lastly, we can see that respondents from a Small Household have higher travel satisfaction than those from a Big Household. We can infer that this is due to the challenge of transporting more people as well as the responsibilities of having a big household when compared to a small one; there are more people's wellbeing to be taken care of in a big household, which may increase the travel required as well as reducing satisfaction.

Data from the survey dataset were also used to plot the graph of travel satisfaction in relation to travel duration, population density, and distance to city centre to observe the effects of respondents' locality and travel duration to the travel satisfaction. These can be seen in Figure 4.5.

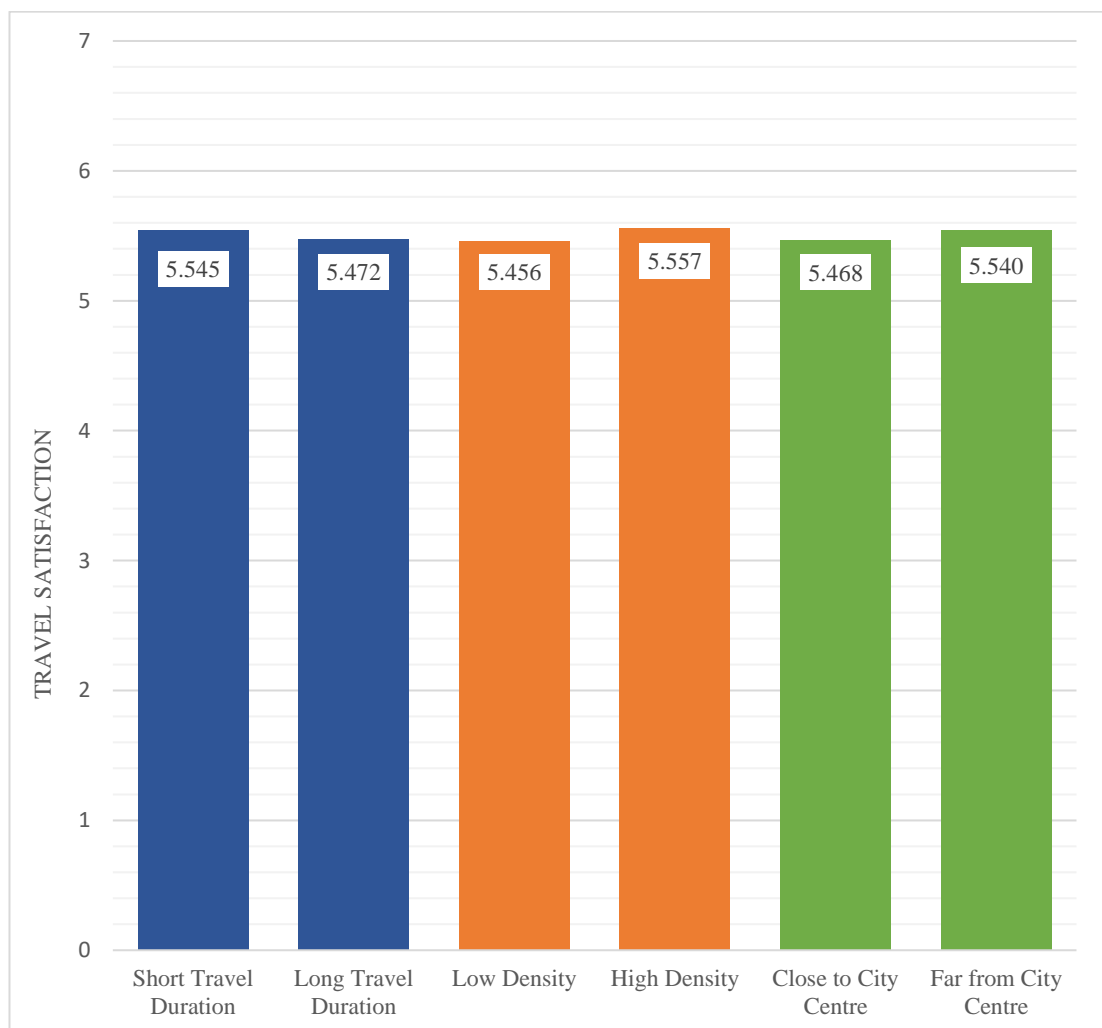


Figure 4.5 Comparison of Travel Satisfaction with Locality & Travel Duration

It is noted from the graphs in Figure 4.5 that travellers with shorter overall travel duration in a day (less or equal than 90 minutes) have a higher travel satisfaction than those with long travel duration (greater than 90 minutes). Surprisingly, travellers that come from a locality with high population density rate their travel satisfaction higher than those from lower population density. It is also noted that respondents that stay further away to the city centre (taking more than 20 minutes to travel to city centre) have a higher travel satisfaction to those staying closer to the city centre. This can be rationalised to be due to the less density of traffic on the outskirts of the city centre, which make travel less hectic and more enjoyable.

## **ii. Analysis of Activity Satisfaction with Travel Satisfaction**

Following up on the variables obtained from the socio-demographic data, activity satisfaction as well as type of activity conducted prior and after episodes of travel activity are recorded and compared to the travel satisfaction experienced by the travelling respondents. The recorded data is then plotted onto graphs to compare the overall travel satisfaction prior and after travel episodes and to observe if the activity satisfaction and type of activity done has any correlation to the travel satisfaction of respondents. A histogram of the activity satisfaction as well as the graph comparing activity satisfaction between different genders before and after travel episodes can be seen in Figure 4.6, Figure 4.7, Figure 4.8, and Figure 4.9.

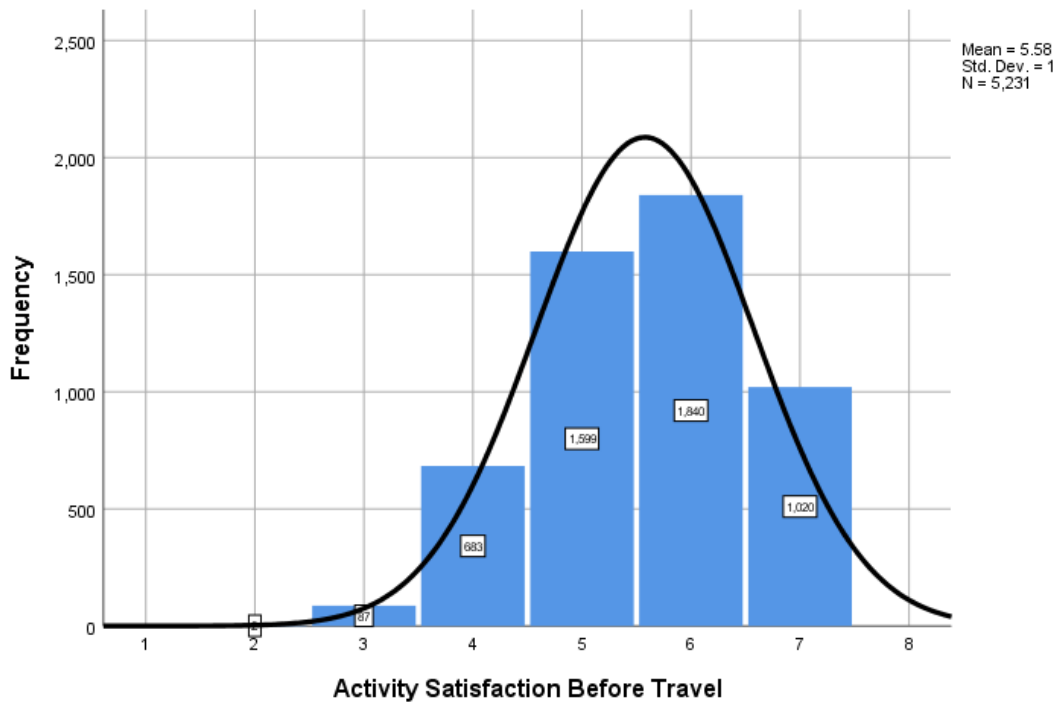


Figure 4.6 Histogram of Activity Satisfaction Before Travel

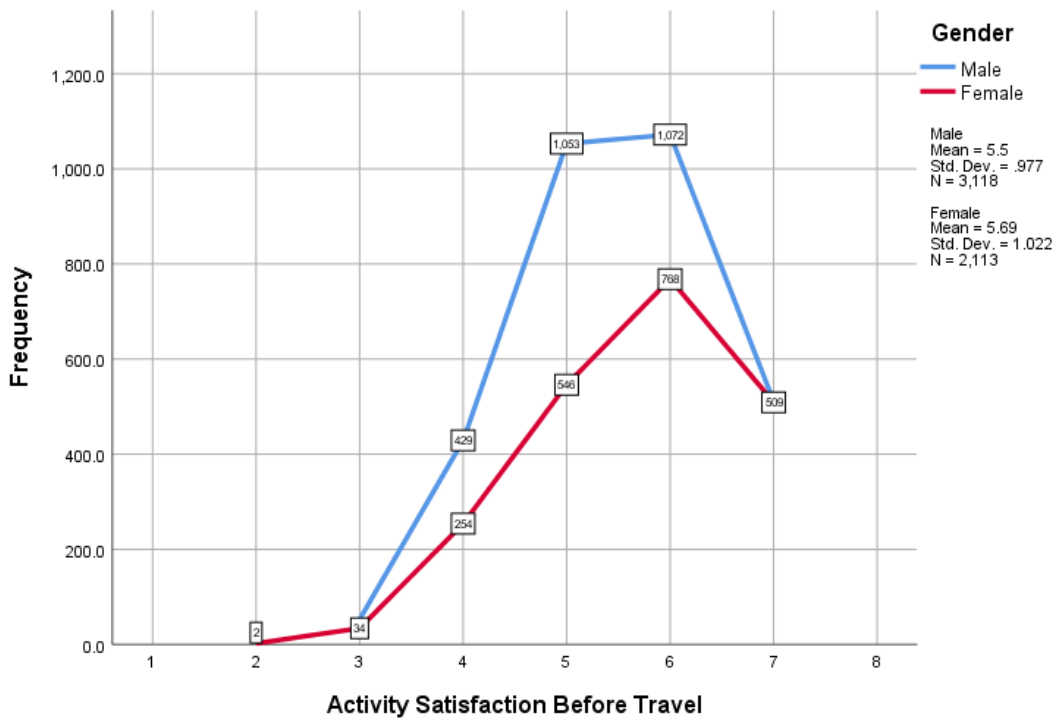


Figure 4.7 Average Activity Satisfaction of Respondents Before Travel



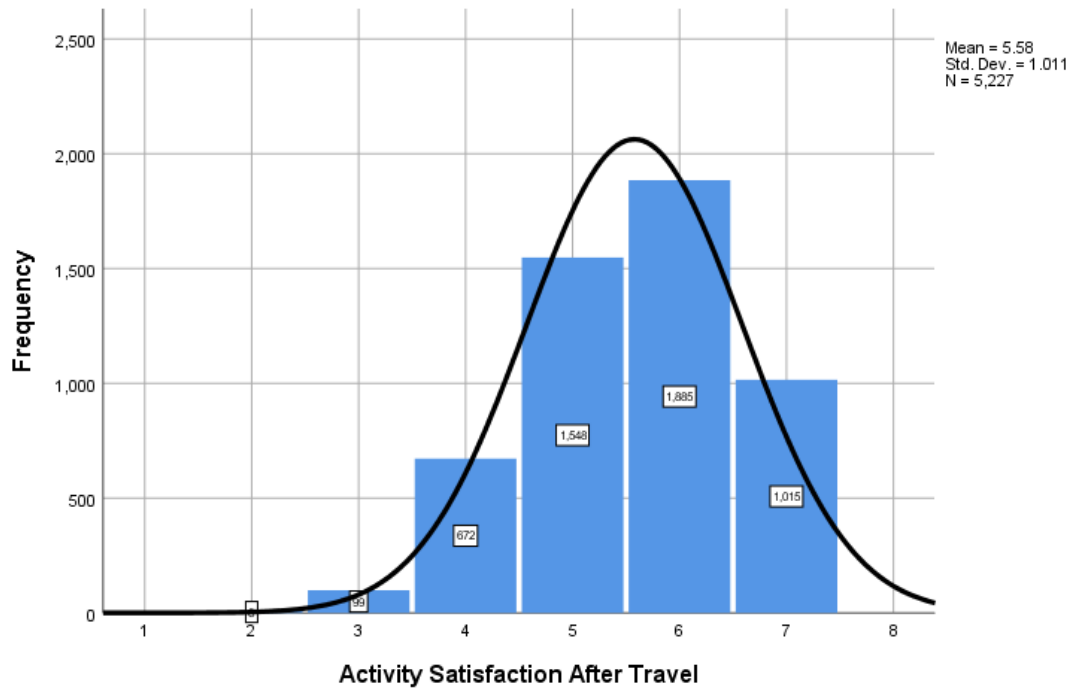


Figure 4.8 Histogram of Activity Satisfaction After Travel

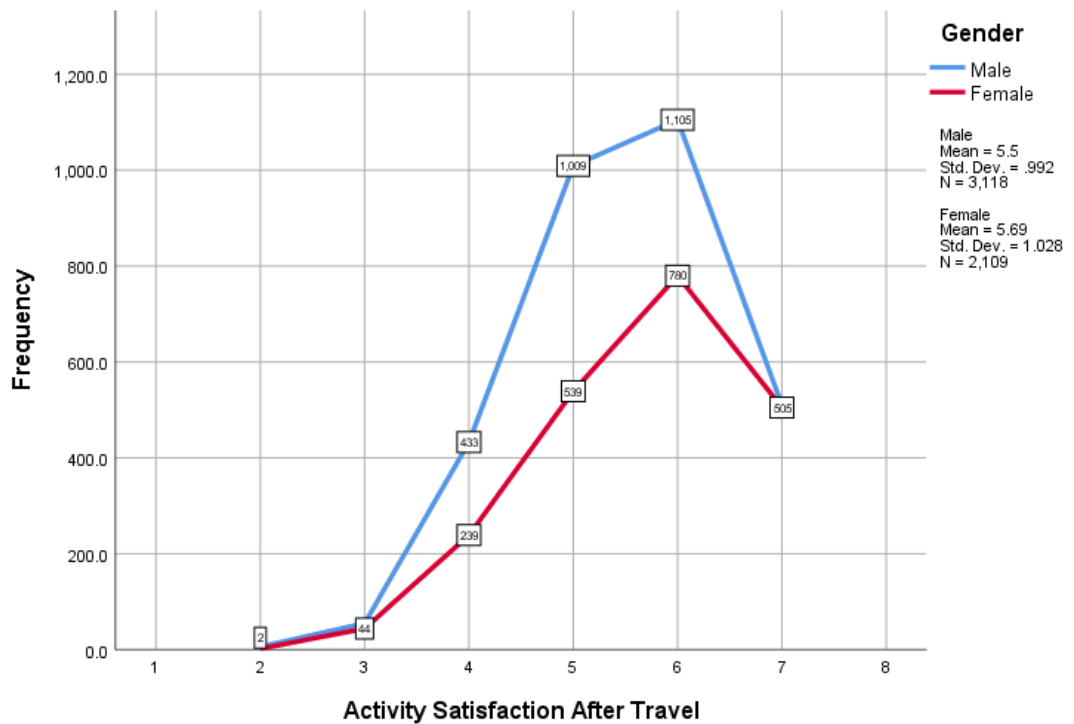


Figure 4.9 Activity Satisfaction of Males & Females After Travel

From the data, we can see the overall mean activity satisfaction is 5.58 whilst the mean activity satisfaction of male and female respondents is 5.50 and 5.69 for both before and after travel episodes. Comparisons between Travel Satisfaction and Activity Type before and after travel as well as Travel Satisfaction with Activity Satisfaction before travel are done as shown in the figures below:

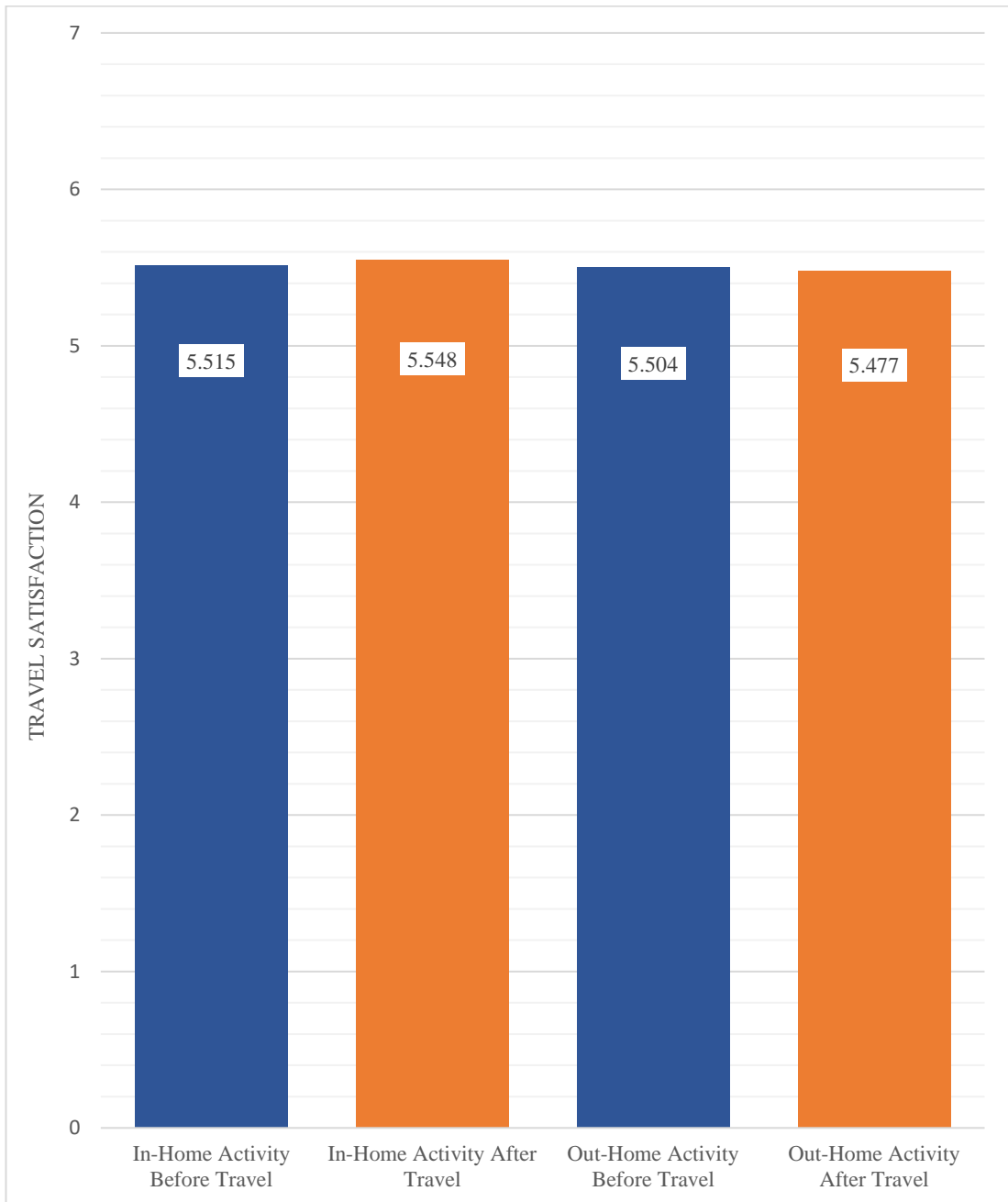


Figure 4.10 Comparison of Travel Satisfaction with Activity Type

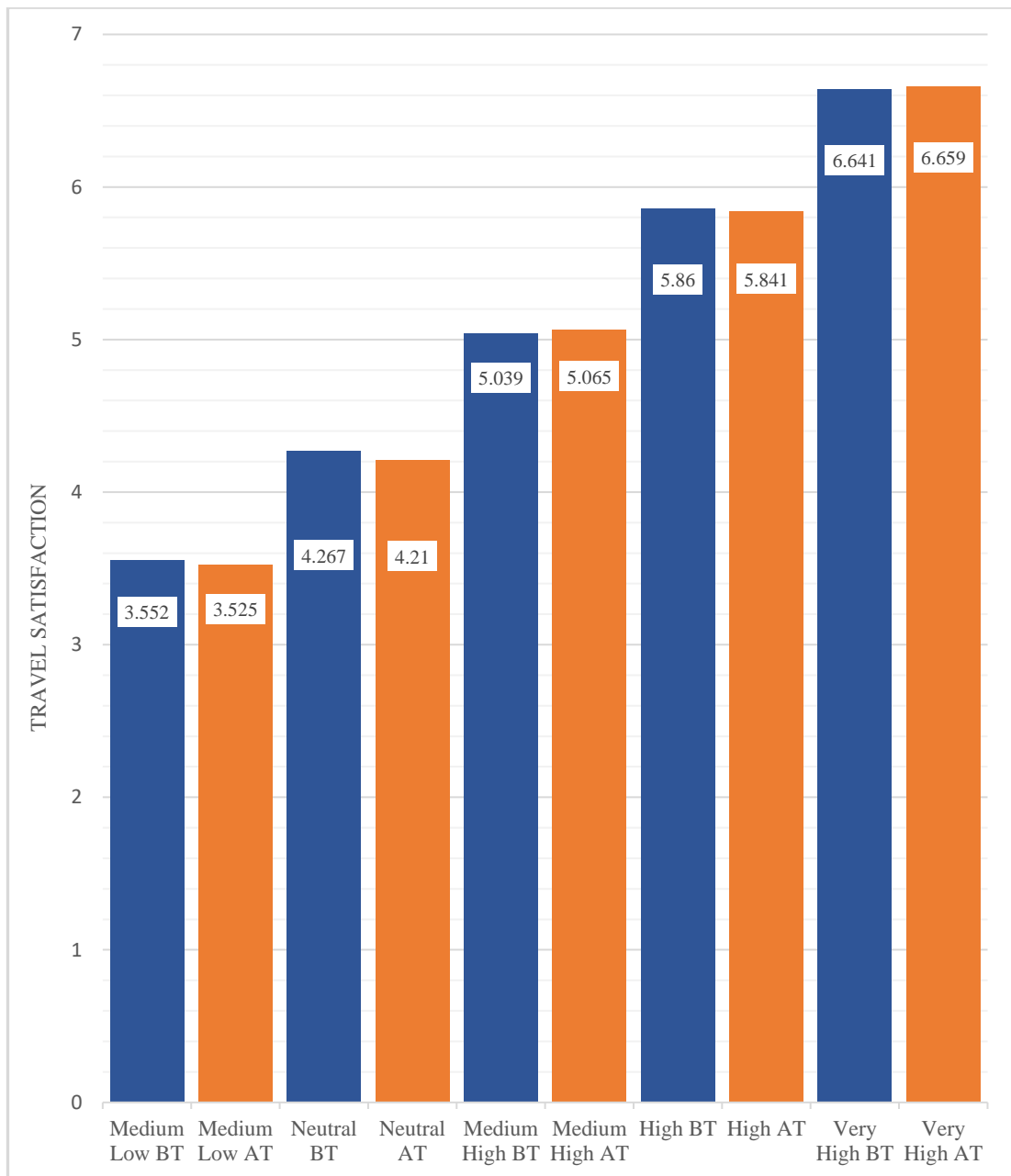


Figure 4.11 Comparison of Travel with Activity Satisfaction

Activity Satisfaction of Rating 1 to 2 (Very Low and Low) are removed from the graph due to the very small number of survey responses (less than 1% of overall). The graph in Figure 4.11 is split into two categories of colours, with Blue for Before Travel (BT) activities and Orange for After Travel (AT) activities.

From the graph in Figure 4.10, we can see that in general, In-Home Activities score a higher mean than Out-Home Activities for both before and after travel episodes. This can be inferred that respondents have higher travel satisfaction when their prior

and after travel activity is an In-Home Activity as they will be more in their comfort zone compared to an Out-Home Activity.

When it comes to comparison of Travel Satisfaction with Activity Satisfaction, we can see a linear increase in travel satisfaction as activity satisfaction increases for both before and after travel episodes. This means that the higher the activity satisfaction conducted prior or after travel, the higher the travel satisfaction will be as well.

### iii. Analysis of Travel Satisfaction with Different Travel Companions

Travel Companion data from the 2017 BMA dataset were extracted as well and were used to be compared with Travel Satisfaction to determine if travel companionship influences the travel satisfaction, as seen in the bar graph in the figure below.

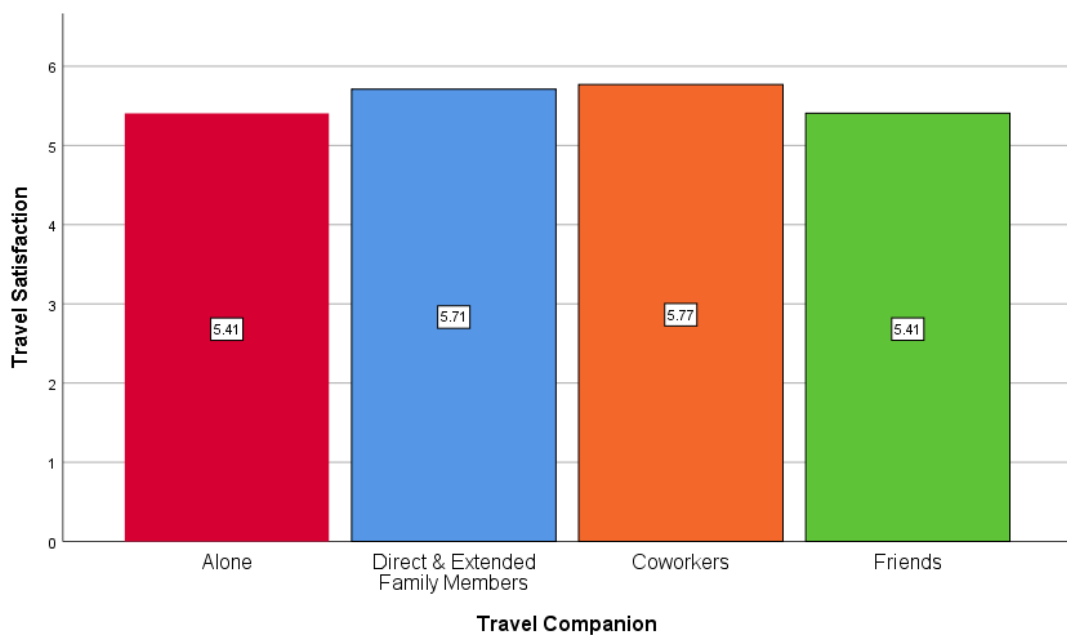


Figure 4.12 Comparison of Travel Satisfaction with Travel Companionship

From the graph that was plotted, we can see that in general, travellers that do not travel alone score overall a higher mean of travel satisfaction in comparison with those that travel alone in their travel episodes. Respondents that travel with Co-Workers scored the highest overall satisfaction out of the different travel companions. Respondents that travel with friends scored almost similar travel satisfaction with those that travel alone.

### 4.3 Statistical Tests

Statistical Tests were conducted to determine variables which are statistically significant which helps to highlight data with significant impact to travel satisfaction.

Table 4.2 Statistical Analysis to Determine Significant Data

Characteristics	Travel Satisfaction			
	<i>T-Value</i>	<i>P-Value</i> ( <i>&lt;0.05 is significant</i> )	<i>Cohen's D</i>	<i>Pearson Correlation, R</i>
<b>Travel Duration</b> ( <i>Compared to Short Travel Duration</i> )				0.035*
Long Travel Duration	2.566	<b>0.010</b>	0.071	
<b>Population Density</b> ( <i>Compared to Low Density</i> )				0.049**
High Density	-3.566	<b>0.000</b>	0.098	
<b>Distance to City</b> ( <i>Compared to Close to City Centre</i> )				0.035*
Far from City Centre	-2.499	<b>0.012</b>	0.070	
<b>Age</b> ( <i>Compared to 23-45 group</i> )				0.079**
Below 22	-0.419	0.676	0.013	
46 – 55	-5.288	<b>0.000</b>	0.197	
Above 56	-2.391	<b>0.017</b>	0.160	
<b>Gender</b> ( <i>Compared to Male</i> )				0.086**
Female	-6.292	<b>0.000</b>	0.176	
<b>Occupation</b> ( <i>Compared to Non-Worker</i> )				0.078**
Student	2.086	<b>0.037</b>	0.077	
Worker	5.672	<b>0.000</b>	0.181	

<b>Household Income</b> <i>(Compared to Low Income)</i>				0.021
Medium Income	-1.557	0.120	0.050	
<b>Travel Companion</b> <i>(Compared to Alone)</i>				0.169**
Direct & Extended Family Members	-8.749	<b>0.000</b>	0.307	
Co-Workers	-8.060	<b>0.000</b>	0.380	
Friends	-0.027	0.978	0.000	
<b>Household Size</b> <i>(Compared to Small Household)</i>				0.100**
Big Household	7.239	<b>0.000</b>	0.205	
<b>Before Travel Activity Type</b> <i>(Compared to In-Home Activity)</i>				0.009
Out-Home Activity	0.393	0.694	0.011	
<b>After Travel Activity Type</b> <i>(Compared to In-Home Activity)</i>				0.035*
Out-Home Activity	2.507	<b>0.012</b>	0.069	
<b>Activity Satisfaction Before Travel</b> <i>(Compared to Low Activity Satisfaction)</i>				0.772**
High Activity Satisfaction	-64.691	<b>0.000</b>	1.806	
<b>Activity Satisfaction After Travel</b> <i>(Compared to Low Activity Satisfaction)</i>				0.782**
High Activity Satisfaction	-64.365	<b>0.000</b>	1.802	

\*\*Correlation is significant at the 0.01 level (2-tailed)

\* Correlation is significant at the 0.05 level (2-tailed)

From Table 4.2, we can observe several statistical analyses that have been conducted to supplement the descriptive statistics from the previous sections. T-value indicates whether the compared group in the variable has a higher travel satisfaction mean than the control group. It is useful for showing the differences in means between groups in a variable. For example, we can see that in the Gender variable, we can observe that the T-value for Female is -6.292 compared to males. This shows that the mean travel satisfaction for females is significantly higher than males, which is supportive of the graph in Figure 4.3.

The next statistical test is the P-Value which shows the significant of the data. Groups that have a P-value of less than 0.05 means that it is a statistically significant data that may affect the travel satisfaction of respondents. Cohen's D is used to determine the sizes of such P-values to find if the identified data has any noticeable effect on travel satisfaction. It is noted that Cohen's D values that are less than 0.2 are considered negligible effect size, even if the data is statistically significant. From Table 4.2, we can see that Travel Satisfaction Before and After Travel, Travel Companion and Household Size variables have groups that show Cohen's D values with significant effect sizes to Travel Satisfaction.

Finally, we have the Pearson Correlation that summarizes the strength of the bivariate relationship with Travel Satisfaction. The value of Pearson Correlation, R, ranges from -1 to +1 in which a negative value means a negative linear relationship, a positive value means a positive linear relationship, and a zero-value showing that there is no relationship between the variables.

From Table 4.2, we can see that all the Pearson Correlations are positive in value, which indicate a positive linear relationship with Travel Satisfaction. However, Household Income and Before Travel Activity Type are insignificant in value, which indicate that they have almost no bivariate relationship with travel satisfaction. We can also see that Activity Satisfaction Before and After Travel, Travel Companion, Household Size have the highest Pearson Correlation scores, which indicate them having the most statistically significant linear relationship out of all the variables, with Activity Satisfaction Before and After Travel having strong correlation while Travel Companion and Household having weak correlation.

## **CHAPTER 5**

### **CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Conclusion**

In conclusion, the bivariate analysis of socio-economic factors, travel parameters, geographic factors, involvement of companions as well as the satisfaction of activities, prior and after travel episodes, in relation to travel satisfaction of individuals were conducted successfully. It is proven that socio-demographic factors such as household size, gender, and age are significant enough to affect the travel satisfaction of individuals whilst travel companionship as well as activity satisfaction prior and after travel episodes significantly affects the travel satisfaction.

The results of this research are hoped to assist in the expansion of knowledge in the activity-travel behaviour study as well as transport planning study as supporting materials in the pursuit of understanding human behaviours in travelling, which may help influence future transport system designs which can help save costs and time while reducing congestion and resources.

#### **5.2 Recommendations**

In future works, it is recommended that the results obtained from this paper are analysed alongside quantity of travel companions, type of transportation used as well as travel parameters in determining the transport mode choice propensity. More research can be conducted on of social and mental health variables in relation to travel satisfaction to increase the clarity of variables that can significantly impact the travel satisfaction of individuals.



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## APPENDICES

# Survei Diari Aktivitas Seseorang

### INSTRUKSI UNTUK MENDATA KEGIATAN HARIAN ANDA:

1. Surveyor akan membantu menjelaskan dan akan membantu dalam pengumpulan nantinya
2. Tolong berikan informasi dasar seperti tempat tinggal, RT/RW, gender, umur dan lain-lain
3. Anda diperbolehkan mengisinya di waktu yang membuat Anda merasa nyaman
4. Aktivitas dibagi menjadi di rumah, di sekolah/kantor, dan di luar rumah atau tempat kerja/sekolah
5. Aktivitas di dalam lingkungan tempat tinggal, berarti aktivitas di dalam wilayah keurahan
6. Di kendaraan berarti saat Anda berada di kendaraan
7. Tolong catat aktivitas yang Anda lakukan di rumah/sekolah/kantor/lingkungan tempat tinggal, dengan mengikuti contoh yang ada
8. Tolong catat moda perjalanan yang Anda gunakan, catat per 15 menit Anda gunakan

### 9. Kriteria aktivitas terdiri dari:

- |   |  |
|---|--|
| A : Tidur   | H : Aktivitas dengan Anak di bawah 6 tahun, seperti  |
| B : Kegiatan pribadi seperti: mandi, sikat gigi, berhias dan sebagainya                         | - Merawat/Baby sitting   |
| C : Makan dan minum di dalam rumah  | - Bermain bersama  |
| D : Aktivitas istirahat offline, seperti:   | - Memberi makan  |
| - Menonton TV/mendengarkan radio  | I : Aktivitas pekerjaan di kantor, seperti:  |
| - Mendengarkan radio  | - Bekerja di atas meja di dalam ruangan  |
| - Mendengarkan musik  | - Melakukan penelitian/eksperimen di laboratorium  |
| - Membaca majalah koran, koran, komik dsb   | - Berbicara dengan klien di telpon   |
| - Istirahat dan relaksasi   | J : Dalam perjalanan (Mohon sampaikan kategori moda yang digunakan seperti disampaikan pada bagian 11 di bawah)  |
| - Lainnya   | K : Pekerjaan lapangan atau di luar kantor seperti mengoperasikan mesin atau alat berat, memantau pekerjaan di luar kantor/inspeksi, aktivitas engineering, dan sejenisnya |
| E : Aktivitas istirahat online  | L : Penjualan ke rumah-rumah atau kantor-kantor/sales, pengantaran/delivery, pembelian/purchasing  |
| - Browsing  | M : Aktivitas belajar di dalam lingkungan sekolah  |
| - Social media  | N : Aktivitas belajar di luar lingkungan sekolah, seperti kunjungan ke kebun binatang, museum dan sejenisnya   |
| - Main game online  | O : Makan dan minum di luar rumah  |
| - Aktivitas online lainnya  | P : Berbelanja kebutuhan sehari-hari atau <i>grocery shopping (non-sight seeing shopping)</i>  |
| F : Aktivitas sosial dan keluarga, seperti:   | Q : <i>Online shopping</i>   |
| - Ngobrol bersama teman/keluarga  | R : <i>Sight seeing shopping</i> seperti ke shopping/trade mall/factory outlet   |
| - Ngobrol bersama teman/keluarga di telepon   | S : Aktivitas organisasi, sukarelawan, politik, kepemudaan, pramuka, keagamaan dan sejenisnya  |
| - Berjalan-jalan/bersepeda bersama dengan pasangan atau anak-anak atau anggota keluarga lainnya | T : Berolahraga  |
| - Mengunjungi rumah teman/sahabat, atau keluarga atau relasi                                    | U : Melakukan perawatan kesehatan ke R.S, puskesmas, klinik atau dokter pribadi  |
| - Beribadah di luar rumah   | V : Aktivitas mengantar menjemput anak/anggota keluarga lainnya/teman/sahabat/relasi   |
| G : Aktivitas rumah tangga, seperti:  | W : Berlibur   |
| - Membersihkan rumah  |  |
| - Memasak   |  |
| - Membuat kue   |  |
| - Mencuci   |  |
| - Menyeterika   |  |
| - Membuat minuman   |  |
| - Lainnya   |  |

11. Kriteria moda terdiri dari:

- |   |                                  |
|---|----------------------------------|
| 1 : Berjalan kaki   | 12 : Bus Besar dan Medium Non AC |
| 2 : Berjalan kaki dari/ke stasiun/halte bus dan sejenisnya            | 13 : Bus kecil/Angkot            |
| 3 : Bersepeda   | 14 : Taksi                       |
| 4 : Mengendarai motor   | 15 : Ojeg                        |
| 5 : Sedan, jeep, kijang dan sejenisnya                                | 16 : Becak                       |
| 6 : <i>Station wagon</i> , seperti: suzuki carry, MPV, dan sejenisnya | 17 : Omprengan                   |
| 7 : <i>Pick up</i>  | 18 : Bajaj                       |
| 8 : Truk  | 19 : Bus sekolah/Karyawan        |
| 9 : Kereta Api Eksekutif  | 20 : Delman                      |
| 10 : Kereta Api Ekonomi   | 21 : Lainnya:                    |
| 11 : Bus Besar dan Medium dengan AC                                   |                                  |

**CONTOH:**

NO	JAM	AKTIVITAS DI RUMAH	AKTIVITAS DI TEMPAT KERJA/ SEKOLAH	AKTIVITAS DI TEMPAT LAIN <sup>1</sup>	JENIS AKTIVITAS KEDUA <sup>2</sup>	MELIBATKAN ORANG LAIN? <sup>3/</sup> JENIS RELASI DENGAN ORANG LAIN? <sup>4</sup>	RATING PERASAAN POSITIF KETIKA MELAKUKAN KEGIATAN PRIMER <sup>5</sup>	ALAMAT/ LOKASI DETIL <sup>6</sup>
	03.00	A					7	
	03.15	A					7	
	03.30	A					7	
	03.45	A					7	
	04.00	E					5	
	04.15	E					5	
	04.30	E					5	
	04.45	E					5	
	05.00	A					6	
	05.15	A					6	
	05.30	A					6	
	05.45	A					6	
	06.00	A					6	
	06.15	A					6	
	06.30	A					6	
	06.45	A					6	
	07.00	A					6	
	07.15	A					6	
	07.30	D					5	
	07.45	D					5	
	08.00	D					5	
	08.15	D					5	
	08.30	D			C	11.1	5	
	08.45	D			C	11.1	5	
	09.00	I2					5	
	09.15			I 2			6	
	09.30			I 10			6	
	09.45			I 10			6	
	10.00			I 10			6	
	10.15			I 2			6	
	10.30		H		D	21.3	6	

NO	JAM	AKTIVITAS DI RUMAH	AKTIVITAS DI TEMPAT KERJA/ SEKOLAH	AKTIVITAS DI TEMPAT LAIN <sup>1</sup>	JENIS AKTIVITAS KEDUA <sup>2</sup>	MELIBATKAN ORANG LAIN <sup>3</sup> /?/ JENIS RELASI DENGAN ORANG LAIN <sup>4</sup>	RATING PERASAAN POSITIF KETIKA MELAKUKAN KEGIATAN PRIMER <sup>5</sup>	ALAMAT/ LOKASI DETIL <sup>6</sup>
	10.45		H		D	21,3	6	TEKNIKRINGEN 10, STOCKHOLM 100 22
	11.00		H		D	21,3	6	
	11.15		M		E	21,3	6	
	11.30		M		E	11,3	6	
	11.45		H				6	
	12.00		H		E	11,3	6	
	12.15		H		E	11,3	6	
	12.30		M		E	11,3	6	
	12.45		M		E	11,3	6	
	13.00		M		E	11,3	6	
	13.15		M		E	11,3	6	
	13.30		H				6	
	13.45		H				6	
	14.00		H				6	
	14.15		H				6	
	14.30		H		E	21,3	6	
	14.45		H		E	21,3	6	
	15.00		H				6	
	15.15		M		E	21,3	6	
	15.30		M		E	21,3	6	
	15.45		H				6	
	16.00		H				6	
	16.15		H				6	
	16.30		H				6	
	16.45		H				6	
	17.00			I, 2	D		7	KROGARVAGEN, 10 FITTJA 145 90
	17.15			I, 10	N, D		7	
	17.30			I, 10	N, D		7	
	17.45			I, 10	D		7	
	18.00			O	E		5	
	18.15			O	E		5	
	18.30			O	E		5	
	18.45			I, 12			7	
	19.00			I, 2	D		7	
	19.15	D					5	
	19.30	D					5	
	19.45	F			D		5	
	20.00	F			D		5	
	20.15	C			D		5	
	20.30	C					5	
	20.45	E					5	
	21.00	E					5	
	21.15	E					5	
	21.30	E			D	11,1	5	
	21.45	E			D	11,1	5	
	22.00	E			D	11,1	5	
	22.15	E					5	
	22.30	A					6	
	22.45	A					6	

NO	JAM	AKTIVITAS DI RUMAH	AKTIVITAS DI TEMPAT KERJA/ SEKOLAH	AKTIVITAS DI TEMPAT LAIN <sup>1</sup>	JENIS AKTIVITAS KEDUA <sup>2</sup>	MELIBATKAN ORANG LAIN <sup>3/4</sup> JENIS RELASI DENGAN ORANG LAIN <sup>5</sup>	RATING PERASAAN POSITIF KETIKA MELAKUKAN KEGIATAN PRIMER <sup>6</sup>	ALAMAT/ LOKASI DETIL <sup>6</sup>
	23.00	A					6	
	23.15	A					7	
	23.30	A					7	
	23.45	A					7	
	00.00	A					7	
	00.15	A					7	
	00.30	A					7	
	00.45	A					7	
	01.00	A					7	
	01.15	A					7	
	01.30	A					7	
	01.45	A					7	
	02.00	A					7	
	02.15	A					7	
	02.30	A					7	
	02.45	A					7	
	03.00	A					7	

<sup>1</sup> Aktivitas selain di tempat kerja/sekolah

<sup>2</sup> Aktivitas kedua ini atau *secondary activities* adalah aktivitas yang dilakukan bersamaan (multi-tasking) dengan kegiatan primer atau pertama. Kegiatan yang mungkin direcord adalah *passive leisure* dan makan atau kegiatan C, D dan E.

<sup>3</sup> 1 untuk kegiatan yang melibatkan satu orang dan 2 untuk melibatkan lebih dari 2 orang. Kode 11 atau 21 bila pelibatan orang lain dilakukan secara off-line, dan 21 atau 22 bila melibatkan secara on-line

<sup>4</sup> 1 untuk bila yang terlihat adalah anggota keluarga, 2 jika anggota keluarga besar, 3 jika kolega di tempat kerja atau komunitas bisnis, 4 untuk teman di sekolah atau komunitas, 5 untuk tetangga sekitar rumah, 6 untuk teman online.

<sup>5</sup> Bagaimana rating perasaan Anda ketika melakukan aktivitas utama (primer)? Tidak Positif 1 ..... 7 Sangat Positif

<sup>6</sup> Mohon dituliskan alamat/lokasi untuk kegiatan di tempat kerja/sekolah dan di tempat lain

Nama Surveyor	:	
Tanggal Survei	:	
Hari survey (1-21), Hari Kerja (1) atau Akhir Pekan (0)	:	
Nama Individu yang diwawancarai (Umur)	:	
Alamat Rumah	:	
Kelurahan, Kecamatan, Wilayah Pengembangan, Kota	:	
Nomor KK	:	
Nomor Individu	:	
Jam berapa Anda berangkat dari rumah	:	
Jam berapa Anda datang ke rumah	:	
Jam berapa Anda tidur hari ini	:	

Q1	Bagaimana menurut Anda kondisi hari ini memperhatikan aktivitas Anda pada hari ini?	Sangat buruk	1	2	3	4	5	6	7	Sangat baik
Q2	Bagaimana mood Anda hari ini memperhatikan aktivitas Anda pada hari ini?	Negatif	1	2	3	4	5	6	7	Positif

Q3	Apakah kegiatan Anda hari ini mencapai tujuan yang Anda inginkan	Jauh lebih rendah dari tujuan yang saya harapkan	1 2 3 4 5 6 7	Jauh lebih tinggi dari tujuan yang saya harapkan
Q4	Bila memperhitungkan segalanya, bagaimana pengaruh kegiatan hari ini dengan kepuasan hidup Anda secara menyeluruh?	Sangat tidak puas	1 2 3 4 5 6 7	Sangat puas

NO	JAM	AKTIVITAS DI RUMAH	AKTIVITAS DI TEMPAT KERJA/ SEKOLAH	AKTIVITAS DI TEMPAT LAIN <sup>1</sup>	JENIS AKTIVITAS KEDUA <sup>2</sup>	MELIBATKAN ORANG LAIN? <sup>3)</sup> JENIS RELASI DENGAN ORANG LAIN? <sup>4</sup>	ALAMAT/ LOKASI DETIL <sup>5</sup>
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	11.30						
	11.45						
	12.00						
	12.15						
	12.30						
	12.45						

NO	JAM	AKTIVITAS DI RUMAH	AKTIVITAS DI TEMPAT KERJA/ SEKOLAH	AKTIVITAS DI TEMPAT LAIN <sup>1</sup>	JENIS AKTIVITAS KEDUA <sup>2</sup>	MELIBATKAN ORANG LAIN <sup>3/4</sup>	ALAMAT/ LOKASI DETIL <sup>6</sup>
						JENIS RELASI DENGAN ORANG LAIN <sup>5</sup>	
	13.00						
	13.15						
	13.30						
	13.45						
	14.00						
	14.15						
	14.30						
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	00.00						
	00.15						
	00.30						
	00.45						
	01.00						



NO	JAM	AKTIVITAS DI RUMAH	AKTIVITAS DI TEMPAT KERJA/ SEKOLAH	AKTIVITAS DI TEMPAT LAIN <sup>1</sup>	JENIS AKTIVITAS KEDUA <sup>2</sup>	MELIBATKAN ORANG LAIN <sup>3,4</sup> / JENIS RELASI DENGAN ORANG LAIN <sup>5</sup>	ALAMAT/ LOKASI DETIL <sup>6</sup>
	01.15						
	01.30						
	01.45						
	02.00						
	02.15						
	02.30						
	02.45						
	03.00						

<sup>1</sup> Aktivitas selain di tempat kerja/sekolah

<sup>2</sup> Aktivitas kedua ini atau *secondary activities* adalah aktivitas yang dilakukan bersamaan (*multi-tasking*) dengan kegiatan primer atau pertama. Kegiatan yang mungkin direcord adalah *passive leisure* dan makan atau kegiatan C, D dan E.

<sup>3</sup> 1 untuk kegiatan yang melibatkan satu orang dan 2 untuk melibatkan lebih dari 2 orang. Kode 11 atau 21 bila pelibatan orang lain dilakukan secara off-line, dan 21 atau 22 bila melibatkan secara on-line

<sup>4</sup> 1 untuk bila yang terlihat adalah anggota keluarga, 2 jika anggota keluarga besar, 3 jika kolega di tempat kerja atau komunitas bisnis, 4 untuk teman di sekolah atau komunitas, 5 untuk tetangga sekitar rumah, 6 untuk teman online.

<sup>5</sup> Bagaimana rating perasaan Anda ketika melakukan aktivitas utama (primer)? Tidak Positif 1 ..... 7 Sangat Positif

<sup>6</sup> Mohon dituliskan alamat/lokasi untuk kegiatan di tempat kerja/sekolah dan di tempat lain

### SURVEI RUMAH TANGGA 1 (HOUSEHOLD SURVEY)

Survey ini merupakan survey yang melibatkan pandangan rumah tangga dan anggota didalamnya. Survey ini terdiri dari 8 (delapan) bagian yaitu, komposisi anggota dalam rumah tangga, akomodasi, komunitas dan lingkungan sekitar, pembagian akomodasi dan akses jaringan (internet), perilaku perjalanan/transportasi, balita/remaja dalam rumah tangga, dan penghasilan.

Dalam proses survey ini, Anda akan didampingi/dibantu oleh surveyor, sehingga Anda dapat dengan mudah menjawab setiap pertanyaan. Jawablah setiap pertanyaan pada kolom jawab yang disediakan. Terimakasih untuk keikutsertaan Anda dalam survey ini.

Nama Kepala Keluarga (KK)	:	
Alamat Rumah	:	
Kelurahan, Kecamatan, Wilayah Pengembangan, Kota	:	
Nomor KK	:	
Tanggal Survei	:	
Nama Surveyor	:	

#### A. KOMPOSISI RUMAH TANGGA (HOUSEHOLD COMPOSITION)

1. Berapa banyak jumlah anggota keluarga dalam rumah tangga Anda (termasuk anak)?..... orang
2. Dapatkah anda menyebutkan nama Anda (Kepala Keluarga)?.....
  - 2.1 Dapatkah anda menyebutkan nama anggota keluarga (rumah tangga) dan hubungannya dengan Anda?

Keterangan :

Kode	Hubungan Keluarga	Kode	Hubungan Keluarga	Kode	Hubungan Keluarga
1.	Suami/Istri/Pasangan	6.	Orang Tua	11.	Cucu
2.	Anak Kandung	7.	Orang Tua Tiri	12.	Kakek/Nenek
3.	Anak Tiri	8.	Mertua	13.	Teman Kost
4.	Anak Angkat	9.	Adik/Kakak Laki-laki/Perempuan	14.	Hubungan kekerabatan lain
5.	Menantu Laki-laki/Menantu Perempuan	10.	Adik/Kakak Ipar Laki-laki/Perempuan	15.	Hubungan non-kekerabatan lain

(Urutan dalam menyebutkan nama anggota keluarga akan digunakan seterusnya dalam form survei wawancara rumah tangga)

Contoh:

No	Nama	Hubungan Keluarga (Kode)	Gender
1	<i>Nur Eny F</i>	<i>1 (contoh)</i>	<i>P (Perempuan)</i>
2	<i>Hasan</i>	<i>2 (contoh)</i>	<i>L (laki-laki)</i>
3	<i>Husein</i>	<i>2 (contoh)</i>	<i>L (laki-laki)</i>
4	<i>Mas'adi</i>	<i>8 (contoh)</i>	<i>L (laki-laki)</i>

No	Nama	Hubungan Keluarga (Kode)	Gender
1			
2			
3			
4			

3. Dapatkah Anda menginformasikan usia Anda? ..... tahun

3.1 Dapatkah Anda menginformasikan usia Anggota keluarga dalam rumah tangga Anda?

Contoh:

No	Kode	Nama	Usia
1	1	<i>Nur Eny F (Nama suami/istri/pasangan atau yang menjadi urutan pertama pada pertanyaan sebelumnya)</i>	32 tahun
2	2	<i>Hasan (Nama anak kandung atau yang menjadi urutan kedua pada pertanyaan sebelumnya)</i>	2 tahun
3	2	<i>Husein (Nama anak kandung 2 atau yang menjadi urutan ketiga pada pertanyaan sebelumnya)</i>	0 tahun
4	8	<i>Mas'adi (Nama orang tua atau yang menjadi urutan keempat pada pertanyaan sebelumnya)</i>	70 tahun

No	Kode	Nama	Usia
1			.....tahun
2			.....tahun
3			.....tahun
4			.....tahun
			.....tahun
			.....tahun

4. Apakah aktivitas Anda sehari-hari? (Jawaban: A-M)

Contoh: Apakah aktivitas Anda sehari-hari? (Jawaban: A-M)

A

- |                                |   |
|--------------------------------|---|
| A. Bekerja (Permanen)          | H. Mahasiswa (Diploma, Institut atau Universitas) |
| B. Bekerja (Kontrak/Sementara) | I. Mahasiswa (Pasca Sarjana)                      |
| C. Bekerja (Part Time)         | J. Ibu Rumah Tangga                               |
| D. Pelajar (TK)                | K. Pensiunan                                      |
| E. Pelajar (SD)                | L. Tidak Bekerja/Menganggur                       |
| F. Pelajar (SMP)               | M. Lainnya, mohon sebutkan:                       |
| G. Pelajar (SMA)               |   |

4.1 Apakah aktivitas sehari-hari anggota keluarga Dalam rumah tangga anda?

Contoh:

No	Kode	Nama	Aktivitas
1	1	Nur Eny F	B (contoh)
2	2	Hasan	G (contoh)
3	2	Husein	E (contoh)
4	8	Mas'adi	K (contoh)

No	Kode	Nama	Aktivitas
1			
2			
3			
4			

5. Apakah jenis lapangan pekerjaan Anda? (Jawaban: A-N)

- |                                   |                                 |
|-----------------------------------|---------------------------------|
| A. Perikanan/Pertanian/Perhutanan | H. Penyediaan Listrik/Gas/Air   |
| B. Pertambangan                   | I. Jasa Pemerintah Pusat        |
| C. Industri/Manufacture           | J. Jasa Pemerintah Daerah       |
| D. Konstruksi                     | K. Penyewaan/Rental             |
| E. Komunikasi dan Transportasi    | L. Industri Jasa/Service        |
| F. Bank/Finance/Asuransi          | M. Militer/Polisi               |
| G. Usaha dagang/Wiraswasta        | N. Pengajar (Ustadz/Guru/Dosen) |
|                                   | O. Lainnya                      |

5.1 Apabila anggota keluarga dalam rumah tangga Anda seorang pekerja, apakah jenis lapangan pekerjaannya?

No	Kode	Nama	Pekerjaan
1		(Nama suami/istri/pasangan atau yang menjadi urutan pertama pada pertanyaan sebelumnya)	G (contoh)

6. Apakah status perkawinan Anda? (Jawaban: A-F)

- |                         |               |
|-------------------------|---------------|
| A. Menikah              | D. Janda/Duda |
| B. Tinggal bersama      | E. Bercerai   |
| C. Single/Belum Menikah |               |

6.1 Dapatkah anda meinformasikan status perkawinan anggota keluarga dalam rumah tangga Anda (usia di atas 16 tahun)?

No	Kode	Nama	Status Perkawinan

7. Apakah pendidikan terakhir Anda? (Jawaban: A-G)
- A. Sekolah Dasar  
 B. Sekolah Menengah Pertama  
 C. Sekolah Menengah Atas  
 D. Diploma (D3)  
 E. Sarjana(S1)  
 F. Master/Doktor (S2/S3)  
 G. Tanpa Latar Belakang Pendidikan

7.1 Apakah pendidikan terakhir anggota keluarga dalam rumah tangga Anda?

No	Kode	Nama	Pendidikan

**B. AKOMODASI (TEMPAT TINGGAL)**

8. Apakah jenis tempat tinggal Anda? (Jawaban: A-G)
- A. Permanen A (Rumah 1-2 lantai untuk kelas atas, dengan material konstruksi yang baik, garasi untuk >2 mobil dan taman yang luas)  
 B. Permanen B (Rumah 1-2 lantai 100-200 m<sup>2</sup>, untuk kelas menengah ke atas, dengan material konstruksi yang baik, garasi untuk 1-2 mobil, dengan taman yang cukup besar)  
 C. Permanen C (Rumah satu lantai, 45-100 m<sup>2</sup>, untuk kelas menengah dengan ada/tidak garasi dan taman yang kecil)  
 D. Permanen D (Rumah sederhana, 21-44 m<sup>2</sup> untuk kelas menengah ke bawah, dengan ada/tidak taman kecil)  
 E. Rumah semi permanen, dengan taman  
 F. Rumah sementara, tanpa taman  
 G. Lainnya, tolong sebutkan: .....
9. Dengan cara apa, Anda menempati tempat tinggal ini? (Jawaban: A-G)
- A. Kepunyaan sendiri  
 B. Membeli sendiri (bantuan pinjaman, dll)  
 C. Menyewa (tahuman)  
 D. Menyewa (bulanan)  
 E. Rumah dinas  
 F. Tinggal tanpa biaya sewa  
 G. Lainnya: tolong sebutkan: .....

9.1 Jika Anda memilih pilihan no C atau D, dari siapa Anda menyewa property tersebut: (*Jawaban: A-D*)

- A. Sewa khusus (*private rent*) C. Sahabat atau Relasi  
 B. Perusahaan/anggota keluarga lain D. Lainnya: tolong sebutkan: .....

10. Berapa jauh tempat tinggal anda dari:

No	Lokasi	Kendaraan Pribadi		Kendaraan Umum	
		Km	Menit	Km	Menit
1	Pusat Kota				
2	bank/ktr. Pos				
3	TK				
4	Playgroup				
5	SD				
6	SMP/SMA				
7	Rumah Sakit				
8	Stasiun				
9	Halte Bus				
10	Supermarket				
11	Pasar				
12	Taman Kota				
13	Kantor Pemerintahan				
14	Tempat Perbelanjaan/Shopping Centre				
15	Puskesmas atau klinik kedokteran				

11.1 Berapa banyak transportasi umum yang dapat Anda gunakan untuk ke Pusat Kota? ...

**C. LINGKUNGAN TEMPAT TINGGAL**

11. (*Berilah tanda silang pada pilihan jawaban Anda pada kolom SS/S/C/TS/STS*)

Keterangan: SS= Sangat Setuju S= Setuju C=Cukup/Biasa saja TS=Tidak Setuju STS=Sangat Tidak Setuju

Contoh:

No	Pertanyaan	SS	S	C	TS	STS
1	Apa Anda pikir anda tinggal di lingkungan tempat tinggal yang baik/nyaman?	✗				
2	Memiliki infrastruktur yang baik (misal: jalan yg baik, sistem sanitasi)		✗			

No	Pertanyaan	SS	S	C	TS	STS
1	Apa Anda pikir anda tinggal di lingkungan tempat tinggal yang baik/nyaman?					
2	Memiliki infrastruktur yang baik (misal: jalan yg baik, sistem sanitasi)					
3	Merupakan lingkungan yang bersih dan tertata rapih?					
4	Merupakan area yang aman dengan kriminalitas rendah?					
5	Ditemukan kegiatan penyalahgunaan narkoba dan minuman keras?					
6	Ditemukan aksi perusakan (mis: graffiti) yang mengganggu kenyamanan?					
7	Ditemukan aksi pemuda yang tidak jelas yang mengganggu kenyamanan?					
8	Merupakan tempat dengan yang indah?					
9	Merupakan tempat yang tenang dan damai?					

No	Pertanyaan	SS	S	C	TS	STS
10	Merupakan tempat yang aman untuk anak-anak bermain?					
11	Anda memiliki tetangga yang bersahabat?					
12	Merupakan tempat yang terkoneksi dengan sistem transportasi publik?					
13	Memiliki tempat parkir untuk setiap rumah, dan tempat parkir umum?					
14	Memiliki fasilitas umum yg baik (masjid, gereja, taman, gedung aula, dll)					
15	Memiliki fasilitas kesehatan yg baik (mudah ditemui puskesmas, klinik dan rumah sakit)?					
16	Memiliki tempat belanja/swalayan/supermarket yang besar dan baik?					
17	Memiliki pasar tradisional yang baik?					
18	Memiliki sekolah yang berstandar baik?					
19	Apakah tidak pernah atau jarang terjadi kemacetan?					
20	Apakah memiliki lalu lintas yang aman?					
21	Apakah Anda merasa hidup di lingkungan tempat tinggal Anda?					
22	Apakah Anda bahagia di lingkungan tempat tinggal Anda?					

#### D. AKSES INTERNET

12. Apakah tempat tinggal Anda memiliki akses internet? (Jawaban: A-B)
- A. Ya  
B. Tidak
- 14.1 Jika, YA, dimana anda terkoneksi dengan internet? (Jawaban: A-F)
- A. Di kantor/tempat bekerja  
B. Di kafe internet, dll  
C. Di tempat teman  
D. Di perpustakaan publik  
E. Di perangkat mobile (Blackberry/Android)  
F. Lainnya: tolong sebutkan: ...
- 14.2 Jika, TIDAK, apakah anda familiar menggunakan internet? (Jawaban: A-F)
- A. Ya  
B. Tidak

#### E. PERILAKU PERJALANAN/TRANSPORTASI

13. Apakah Anda mempunyai kendaraan pribadi? (Jawaban: A-B)
- A. Ya  
B. Tidak
- 15.1 Jika, YA, berapa banyak kendaraan pribadi Anda?.....buah
- 15.2 Kendaraan jenis apa yang Anda punyai? (Jawaban: A-E)
- A. Sedan, Jeep, Kijang dan sejenisnya  
B. Station wagon atau van seperti VW Combi, Suzuki Carry, Daihatsu zebra, Suzuki MPV dan sejenisnya  
C. Pick-up  
D. Motor  
E. Lebih dari 1 jenis, sebutkan:  
F. Lebih dari 2 jenis, sebutkan:  
G. Lainnya
- 15.3 Seberapa sering Anda menggunakannya? (Jawaban: A-F)
- A. Setiap hari  
B. Beberapa hari dalam seminggu  
C. Satu hari dalam seminggu  
D. Pada hari kerja saja (weekdays)  
E. Pada hari libur (weekend)  
F. Lainnya, mohon sebutkan:.....

15.4 Apakah Anda menggunakan kendaraan pribadi tersebut secara penuh atau secara parsial?

(Jawaban: A-E)

A. Secara menyeluruh

B. Secara parsial, dan terintegrasi dengan moda transportasi, tolong sebutkan:.....

15.5 Apakah Anda juga menggunakan moda transportasi lainnya? (Jawaban: A-B)

A. Ya

B. Tidak

15.6 Jika anda menjawab YA mohon sebutkan moda transportasi lainnya. (Jawaban: A-E)

A. Angkutan umum Bus seperti Angkot, Bus Sedang, Bus Besar, TMB dan sejenisnya

D. Ojeg

E. Sepeda

B. Angkutan umum KA

F. Taksi

C. Bus Karyawan

G. Lainnya, mohon sebutkan:.....

15.7 Seberapa sering Anda menggunakan moda transportasi lainnya? (Jawaban: A-F)

A. Setiap hari

D. Pada hari kerja saja (weekdays)

B. Beberapa hari dalam seminggu

E. Pada hari libur (weekend)

C. Satu hari dalam seminggu

F. Lainnya, mohon sebutkan:.....

14. Apabila pada pertanyaan No.13 Anda menyatakan TIDAK, bagaimana cara Anda melakukan perjalanan/aktivitas?

(Jawaban: A-D)

A. Transportasi umum, seperti angkot, bus sedang, bus besar, KA, TMB dan sejenisnya

B. Angkutan KA

C. Taksi, ojeg atau bajaj

D. Bus Karyawan

E. Mobil bersama (*car sharing*)

F. Transportasi tidak bermotor

G. Lainnya: tolong sebutkan: ...

15. Apakah anda berbagi dengan anggota keluarga lainnya dalam hal penggunaan kendaraan pribadi? (Jawaban: A-

B)

A. Ya

B. Tidak

15.1 Jika, YA, bagaimana Anda berbagi kendaraan tersebut? (Jawaban: A-D)

A. Menggunakannya secara bergantian

B. Menggunakannya secara bersama di setiap aktivitas

C. Menggunakan secara bergantian dan secara bersama di setiap aktivitas

D. Lainnya, tolong sebutkan: ...

#### F. PENDAPATAN RUMAH TANGGA

16. Berapa hari Anda bekerja dalam satu minggu? (Jawaban: A-F)

A. Kurang dari 3 hari /minggu

D. 5 hari /minggu

B. 3 hari /minggu

E. 6 hari /minggu



C. 4 hari/minggu

F. 7 hari/minggu

16.1 Jika ada anggota keluarga dalam rumah tangga Anda bekerja, berapa hari mereka bekerja /minggu?

(Jawaban: A-F)

No	Kode	Nama	Bekerja dalam seminggu
1			
2			

17. Apakah Anda memiliki pekerjaan lain di samping pekerjaan utama? (Jawaban: A-F)

A. Ya

B. Tidak

21.1 Jika, YA, apa jenis pekerjaan disamping pekerjaan utama Anda? (Jawaban: A-D)

A. Pekerjaan /bisnis sendiri

C. Bekerja padaperusahaan lain

B. Bekerja dengan relasi bisnis

D. Lainnya, tolong sebutkan: ...

18. Berapa jumlah pendapatan/bulan rumah tangga Anda? (Jawaban: A-F)

A. kurang dari Rp.1.000.000

E. Rp.9.000.000 – Rp. 15.000.000

B. Rp.1.000.000 – Rp.3.000.000

F. Rp.15.000.000 – Rp. 20.000.000

C. Rp.3.000.000 – Rp. 6.000.000

G. Di atas Rp 20.000.000

D. Rp.6.000.000 – Rp. 9.000.000

19. Berapa persentase biaya transportasi dari pendapatan Anda? (Jawaban: A-F)

A. 0 – 10%

D. 30 – 40%

B. 10 – 20%

E. lebih dari 40%

C. 20 – 30%

F. tidak mengetahui