



**CUSTOMER ATTITUDES TOWARD SERVICE OF  
BTS SKYTRAIN DURING WEEKDAYS**

**BY**

**MISS KANIT VANNASIRI**

**AN INDEPENDENT STUDY SUBMITTED IN PARTIAL  
FULFILLMENT OF  
THE REQUIREMENTS FOR THE DEGREE OF  
MASTER OF SCIENCE PROGRAM IN MARKETING  
(INTERNATIONAL PROGRAM)  
FACULTY OF COMMERCE AND ACCOUNTANCY  
THAMMASAT UNIVERSITY  
ACADEMIC YEAR 2017  
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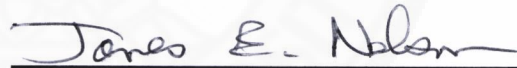
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was approved as partial fulfillment of the requirements for  
the degree of Master of Science Program in Marketing (International Program)

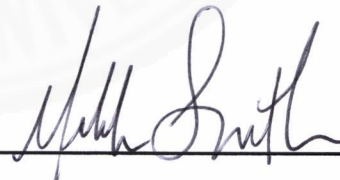
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Independent Study Title	CUSTOMER ATTITUDES TOWARD SERVICE OF BTS SKYTRAIN DURING WEEKDAYS
Author	Miss Kanit Vannasiri
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## **ABSTRACT**

BTS SkyTrain is the largest mass transit operator in Bangkok, Thailand with 66% ridership market share during the working week at around 600,000 people per day. The company tries to improve its customer satisfaction towards services by doing a customer satisfaction survey annually. However, the latest satisfaction rating was just 3.84 out of 5.

There are three main research objectives. First, the research will identify the target consumers and their profiles for BTS SkyTrain. Second, the research will evaluate customer attitudes toward services that BTS offers during the trip. Lastly, the research will discover customer attitudes toward the usage of the Rabbit Smart Pass card system.

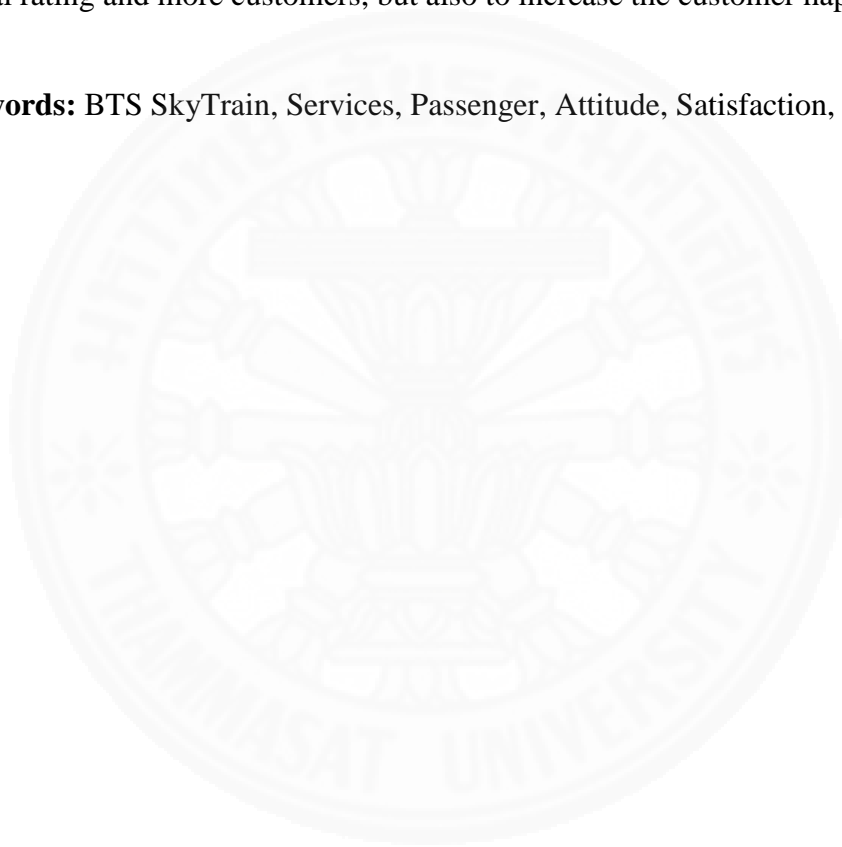
The exploratory research includes secondary research, which was obtained from published sources, while eight in-depth interviews provided insights of consumer behaviors and perceptions toward BTS SkyTrain. The key findings from the exploratory research were validated through the descriptive research of 216 online questionnaires. The Statistical Package for the Social Sciences (SPSS) program was also used to analyze the data from the survey.

All respondents were divided into three segments based on their lifestyle, which are Active Passengers, Socially Oriented Passengers, and Variety Seeking Passengers. Moreover, the study revealed some issues that were necessary for the

passengers. For example, there were no plastic bags provided to pack umbrellas when it rained, there was no the LED information board to notice what time the train will come, etc. Recommendations are provided that the company can implement that takes these into consideration.

This research is designed to obtain a better understanding of customer attitudes towards services of the BTS SkyTrain during weekdays. The findings from this study will provide the benefits not only for the BTS SkyTrain to gain a higher annual rating and more customers, but also to increase the customer happiness.

**Keywords:** BTS SkyTrain, Services, Passenger, Attitude, Satisfaction, Weekdays



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Miss Kanit Vannasiri

## TABLE OF CONTENTS

	Page
ABSTRACT	(1)
ACKNOWLEDGEMENTS	(3)
LIST OF TABLES	(7)
LIST OF FIGURES	(8)
CHAPTER 1 INTRODUCTION	
1.1 Introduction to the Study	1
1.2 Objectives	1
CHAPTER 2 REVIEW OF LITERATURE	4
2.1 Business Overview	4
2.2 Five-Year Strategy of BTS SkyTrain	4
2.3 Problem about Facilities and Operation	4
2.4 Framework about Services	5
2.5 Customer Research about BTS SkyTrain	6
2.6 Conclusion of Literature Review	6
CHAPTER 3 RESEARCH METHODOLOGY	8
3.1 Research Design	8
3.2 Exploratory Research	8
3.2.1 Secondary Data	8
3.2.2 In-depth Interview	8

3.3 Descriptive Research	9
3.3.1 Target respondents	9
3.3.2 Survey recruiting plan	9
3.3.2.1 Pantip	10
3.3.2.2 Facebook	10
3.3.2.3 Twitter	10
3.3.2.4 Other Social Media Platforms	10
3.4 Identification of Key Research Variables	10
3.5 Data Analysis Plan	11
3.6 Limitations of the Study	11
<b>CHAPTER 4 RESULTS AND DISCUSSION</b>	<b>12</b>
4.1 Key Results from Secondary Research	12
4.2 Key Results from In-depth Interviews	12
4.2.1 Customer attitudes toward the procedure before passing through the BTS SkyTrain automatic station gates	13
4.2.2 Customer attitudes toward the services received while on BTS SkyTrain platforms	13
4.2.3 Customer attitudes toward the services received while onboard BTS SkyTrains	14
4.2.4 Customer attitudes toward the services received while exiting BTS SkyTrain stations	14
4.2.5 Customer attitudes toward the method of payment for BTS SkyTrain tickets	14
4.2.6 Customer attitudes toward the privileges received from using the BTS SkyTrain Rabbit SmartPass card	15
4.3 Key Results from Questionnaire Survey	15
4.3.1 General Profile of Respondents	15
4.3.1.1 Gender	15
4.3.1.2 Age	15



4.3.1.3 Occupation	15
4.3.1.4 Education	15
4.3.1.5 Current Status	15
4.3.1.6 Monthly Income	15
4.3.2 BTS SkyTrain customers segmented by their Lifestyle	15
4.3.3 Characteristics of each segment	16
4.3.3.1 Segment 1: Active Passengers	16
4.3.3.2 Segment 2: Socially Oriented Passengers	16
4.3.3.3 Segment 3: Variety Seeking Passengers	16
4.3.4 Customer attitudes toward services that BTS offers during the trip	16
4.3.4.1 Customer attitudes toward the process before getting into the automatic gate of the station	16
4.3.4.2 Customer attitudes toward the services that they receive while on the platform	18
4.3.4.3 Customer attitudes toward the services that they receive while onboard the BTS	20
4.3.4.4 Customer attitudes toward the services that they receive while exiting the station	21
4.3.5 Customer attitudes toward the usage of the Rabbit SmartPass card system	22
4.3.5.1 Customer attitudes toward the method of payment	22
4.3.5.2 Customer attitudes toward the privileges that they receive from using the Rabbit SmartPass card	24
CHAPTER 5 CONCLUSIONS AND RECOMMENDATIONS	27
5.1 Research Summary	27
5.2 Recommendations	29
REFERENCES	32
APPENDICES	

APPENDIX A In-depth Interviews Questions	35
APPENDIX B Online Questionnaire	36
APPENDIX C Summary of Respondents Profile	43
APPENDIX D Factor Analysis	44
APPENDIX E Cluster Analysis	45
APPENDIX F Analysis of Variance	47
BIOGRAPHY	54



## LIST OF TABLES

Tables	Page
3.1 Sampling Plan	9
4.1 General Profile of Respondents	12
4.2 Summary of different between segments for customer attitudes toward the process before getting into the automatic gate of the station	18
4.3 Summary of results for customer attitudes toward the services that they receive while on the platform	20
4.4 Summary of results for customer attitudes toward the services that they receive while onboard the BTS	21
4.5 Summary of results for customer attitudes toward the services that they receive while exiting the station	23
4.6 Summary of results for customer attitudes toward the method of payment	24
4.7 Summary of results for customer attitudes toward the privileges that they receive from using the Rabbit SmartPass card	26

## LIST OF FIGURES

Figures	Page
3.1 Relationship of Independent variables and Dependent Variables	10
4.1 The barrier between the train and the platform	13
5.1 Example of the LED information board from Singapore	30
5.2 Example of the umbrella bag dispenser	31



# CHAPTER 1

## INTRODUCTION

### 1.1 Introduction to the Study

Traffic jams in Bangkok cause Bangkokians waste 45% of gas that they normally use per day or around 2,500 million liters per year. Moreover, they also have to spend more than 1-3 hours struggling in a car to go to their school or workplace every day. Compared to other transportations, the BTS SkyTrain helps Bangkokians save time and money on gas. Therefore, the BTS SkyTrain has a vital role in their daily life (Engineeringtoday, 2010). Most of the BTS passengers travel the BTS SkyTrain 4-5 days per week during peak hours, both in the morning and in the evening (BTS Group, 2017). According to Naewna News (2017), BTS customer satisfaction has achieved a rating of 3.84 out of five. The highest rating of satisfaction is in safety and security area (4.10) and the lowest rating of satisfaction is in ticketing and marketing area (3.62).

Yet, as will be discussed below in the literature review, many attributes about the BTS SkyTrain services and facilities are still not known. Therefore, this research aims to answer the following question: “Which factors could be improved to increase the satisfaction of customers who ride the BTS SkyTrain during weekdays?” This research is a contemporary topic in applied marketing about the customer attitude towards service of BTS SkyTrain, focusing on the subject area of society in Thailand. This report is organized in the following manner. The next section will cover the objectives of the research. This will be followed by a literature review, a discussion of

the methods used, the key variables, sampling, data analysis, results, discussion, and recommendations.

## **1.2 Objectives**

This study consists of three main objectives as follows;

### **1.2.1 To identify the target consumers and their profiles for the BTS**

#### **SkyTrain**

##### 1.2.1.1 Lifestyle

##### 1.2.1.2 Demographic: Age, Gender, Occupation, Income, etc.

1.2.1.1 Ridership Behavior : Frequency of riding BTS per week, Period of time they ride BTS most often, Objective of riding BTS, Average spending on BTS per day, Method of adding money to the Rabbit SmartPass card.

### **1.2.2 To evaluate customer attitudes toward services that BTS offers during the trip**

1.2.2.1 To determine customer attitudes toward the process before getting to the automatic gate of the station e.g. staff helpfulness, ticket purchase, clear information of signage, the number of automatic gate, available facilities for disabled people, etc.

1.2.2.2 To determine customer attitudes toward the services that they receive while on the platform, e.g. waiting time, clear information of signage, the number of benches, etc.

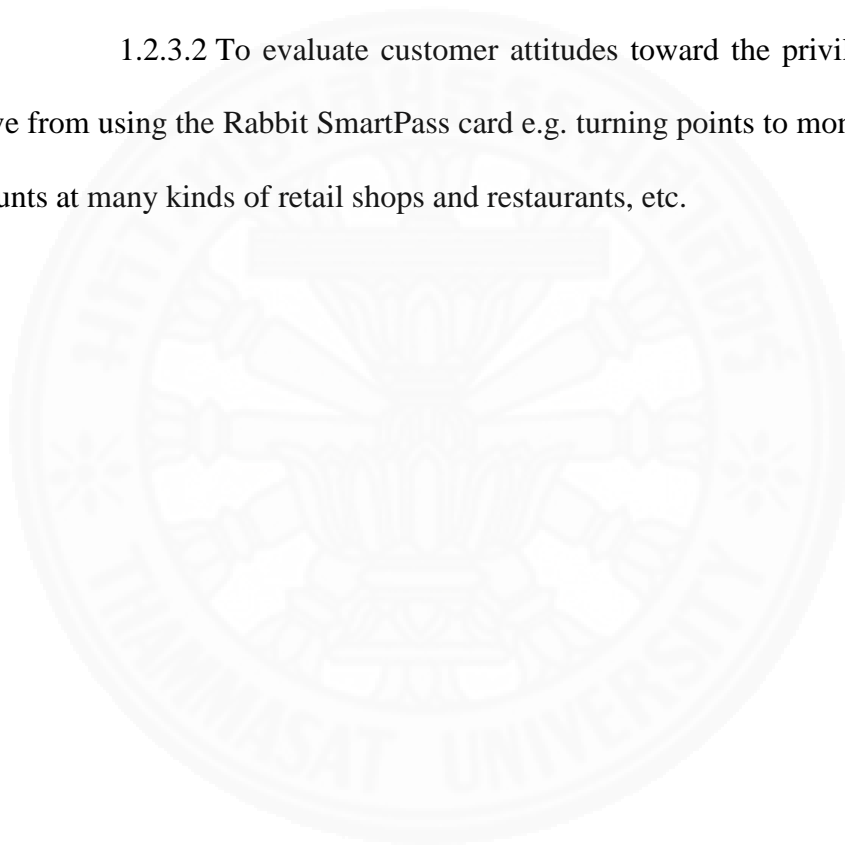
1.2.2.3 To determine customer attitudes toward the services that they receive while onboard the BTS e.g. quality of train system, sound quality of loudspeaker, proper temperature, the number of handles, etc.

1.2.2.4 To determine customer attitudes toward the services that they receive while exiting the station e.g. the number of automatic gate, the number of shops, etc.

**1.2.3 To discover the customer attitude towards the usage of the Rabbit SmartPass card system**

1.2.3.1 To evaluate customer attitudes toward the method of payment.

1.2.3.2 To evaluate customer attitudes toward the privileges that they receive from using the Rabbit SmartPass card e.g. turning points to money in the card, discounts at many kinds of retail shops and restaurants, etc.



## **CHAPTER 2**

### **REVIEW OF LITERATURE**

#### **2.1 Business Overview**

BTS SkyTrain was officially opened in 1999. Built and operated by the Bangkok Mass Transit System Public Company Limited (BTSC), it was the first electric mass transit railway system to commence operations in Thailand. BTS SkyTrain system is a standard mass transit system commonly used in cosmopolitan cities. Each train serves up to 1,000 passengers per journey compared to the 800 vehicles on the roads transporting the same number of commuters. (BTS Group, 2017) There are over 600,000 people who ride the BTS SkyTrain per day during weekdays (Arphaaphirom, 2013). BTS SkyTrain is the largest mass transit operator in Bangkok, Thailand with 66% ridership market share. (BTS Factsheet, 2017).

#### **2.2 Five-Year Strategy of BTS SkyTrain**

There are three key investment features for their five-year strategy, which are mass transit, media, and property. The investment feature relating to the research topic directly is the mass transit. The Company desires to increase ridership growth by 3-5% over five years (BTS Factsheet, 2017). However, this goal might prove difficult to achieve as the latest customer satisfaction survey gave disappointing results.

#### **2.3 Problem about Facilities and Operation**

Even though the ticketing and marketing area received the lowest score, the system error of the BTS SkyTrain also seems to be a huge problem. According to the issue from Pantip, the most popular web board in Thailand, some users gathered statistics from the official Twitter of the BTS SkyTrain and revealed that there were system errors 52 times per year or 4 times per month (Pantip, 2017 A). Many passengers have demanded more development of the system in order to avoid more failure because the BTS SkyTrain is the main transportation in Bangkok and its failure could affect many people (Posttoday, 2017). Also, they demanded that the BTS SkyTrain be more frequent or add more buggies in order to hold as many



passengers as possible during peak hours (Pantip, 2017 B). Furthermore, after the photo of a disabled lady with her wheelchair using the escalators by holding the handrail by herself was revealed, there was a social criticism. They wanted BTS SkyTrain to provide elevators for every station for disabled people (Lheam-Thong, 2017).

## **2.4 Framework about Services**

In a highly competitive economy, many businesses become more similar and it becomes more difficult to maintain their uniqueness. Businesses cannot create their own uniqueness because they do not use their full imagination. There are many ways to differentiate themselves in terms of value and benefits for their consumers. The businesses might redesign their products or services offered by following their consumer needs. They could provide more facilities, offer faster services, provide better training to their employees, or offer a product warranty. Even though there are no offers that have good impact forever, it keeps the businesses alert and makes their consumers see that they never stop developing. (Samerjai, 2002)

Consumers are individual and organizations who purchase products or services in order to consume by themselves or to assemble to other products, not for resale. Responding to consumer needs and creating customer satisfaction is fundamental of any marketing strategy. However, the way to create a good strategy is to get the consumer insights. Therefore, businesses need a marketer to study consumer behavior and all gaps between consumer needs and services offered. (Jitcheang, 2010)

One of the gaps model of service quality will be used for the second objective which is to evaluate the customer attitude towards services that the BTS SkyTrain offers during the trip. The explanation is as follows;

**Provider gap 1 (Knowledge Gap):** Not knowing what customers expect

This is the gap between the consumer expectations of service and the company perception of consumer expectations. Because the business has not conducted marketing research, there is a lack of communicating and maintaining relationships with the customers, and a lack of prioritizing the business management.

A solution to avoid this gap is to do marketing research and to prioritize the business management. In this research, the BTS SkyTrain's customers will be asked

about the new attributes that are not in the existing research in order to make BTS Group understand more about consumer needs. (Shahaida, 2012)

## **2.5 Customer Research about BTS SkyTrain**

Jitcheang (2010) studied the purchase intention of Bangkokians who ride the BTS SkyTrain. Some questions in this study were about the staff friendliness, proper temperature, clear information on signage, etc. However, this research was collected eight years ago. Therefore, I desire to know whether there are any differences from then to now. The previous research found that most of the BTS SkyTrain passengers are female, 15-24 years of age, students, and have a salary base less than 10,000 baht. The period of time that they ride the BTS most often is 09:00-12:00 A.M. They focus on the convenience, speed, and safety.

Apart from the purchase intention, there is a survey that studied passengers who use the Rabbit SmartPass card. The research found that most of the BTS passengers who use the Rabbit SmartPass card are female, 21-30 years of age, employees of a private company, and have salary range around 10,001-20,000 baht. They mostly use the adult Sky SmartPass (Stored Value SmartPass). They often use the BTS SmartPass on weekdays to get to work due to its convenience and rapidity (Udommahalarp, 2010)

## **2.6 Conclusion of Literature Review**

BTS SkyTrain is the largest mass transit operator in Bangkok, Thailand with 66% ridership market share during the working week at around 600,000 people per day. The Company desires to increase ridership growth by 3-5% over five years. This goal might prove difficult to achieve as the latest customer satisfaction survey revealed disappointing results. Many problems with BTS SkyTrain services are highlighted daily on Pantip and Twitter social media sites such as system errors and lack of facilities for disabled people. The company should analyze this Knowledge Gap to recognize a better understanding of the needs of their customers. Previous research concerning BTS customers found that most passengers who used the BTS SmartPass were female and convenience, speed, and safety were all important factors.

However, the data were collected many years ago. This study, therefore, determined the current passenger assessment of the BTS transport system.



## **CHAPTER 3**

### **RESEARCH METHODOLOGY**

#### **3.1 Research Design**

This research was conducted using two methods, which were exploratory research and descriptive research. The exploratory research included secondary research and in-depth interviews. The data and insights from the exploratory research were used in the development of the questionnaires, which were distributed through online channels.

#### **3.2 Exploratory Research**

##### **3.2.1 Secondary Data**

At the initial stage of this study, the secondary data was obtained from credible sources in order to collect general information about the BTS SkyTrain business in Bangkok. The data includes reliable statistics, existing consumers' opinions, and other useful information from published sources that are related to this study. The secondary sources came from the Internet, abstracts, textbooks, and previous research. All information was collected to analyze and to be used as a guideline to set up questions for in-depth interviews for the next stage of the study.

##### **3.2.2 In-depth Interviews** (see Appendix A: In-depth interviews questions)

The in-depth interviews were conducted to obtain consumers insights on attitudes toward services that the BTS SkyTrain offers during the ride, the usage of the Rabbit Smart Pass card system, and the segmentation of the BTS SkyTrain consumers. The in-depth interviews provided insightful information on an individual's perspective, while not being influenced by other people. This method was conducted with eight participants.

For the recruitment, a personal contact was used to recruit eight participants from various consumer profiles. The in-depth interviews were conducted both by face-to-face communication at Starbucks (Siam Square) and by telephone calls. The target respondents are Thai passengers who are living, studying, or working in an

urban area of Bangkok, especially in the CBD district and residential area. The length of the in-depth interview did not exceed 30 minutes per participant.

### 3.3 Descriptive Research

This study used a questionnaire survey, which was analyzed using various analysis techniques. The structured questionnaire was designed to seek the attitude of the respondents on their level of agreement/ disagreement on a 1-5 Likert scale. Apart from collecting the demographic and the socio-economic characteristics data, the questionnaire was also designed to gain information concerning the respondents' expectation and perceived quality on the performance of the facilities.

The descriptive research aimed to provide a clear picture of consumers' attitude towards the BTS SkyTrain services. The descriptive research was used to quantify the findings from the exploratory research. The research aimed to have at least 200 completed questionnaires. The length of the questionnaire did not exceed 15 minutes per respondent. (see Table 3.1)

Type of Research	Methodology	Pre-Test Pilot	Sample Size
Qualitative	In-depth Interview	-	8 respondents
Quantitative	Survey Questionnaire	5 respondents	215 respondents

**Table 3.1: Sampling Plan**

#### 3.3.1 Target respondents

The target respondents are Thai male and female passengers who are between 15-40 years of age, and are living, studying, or working in an urban area of Bangkok, especially in the CBD district and residential area. According to the BTS Group (2016), two third of all Thai BTS SkyTrain customers are people who are between 15-40 years of age.

#### 3.3.2 Survey recruiting plan (see Appendix B: Online questionnaire)

The online questionnaire was distributed to respondents using a non-probability convenience sampling plan over the target population from various online community as follows:

**3.3.2.1 Pantip:** There are many different rooms on Pantip.com. Therefore, the questionnaire was posted in the rooms that are related to the BTS SkyTrain consumer, such as the ‘Community Hall’ room, the ‘Siam Square’ room, and the ‘Silom’ room.

**3.3.2.2 Facebook:** The questionnaire was posted in the official pages, unofficial pages, and groups that are related to the BTS SkyTrain consumer as follows;

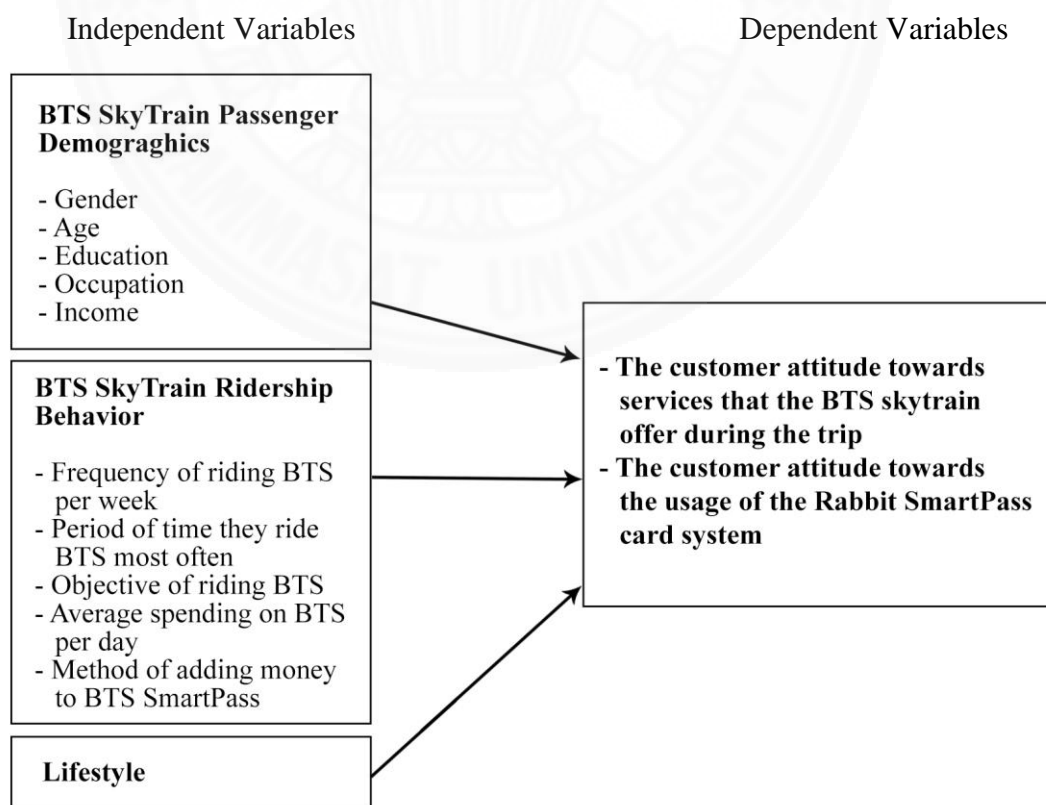
- (1) Official pages: BTS SkyTrain, NuduanBTS
- (2) Unofficial pages: Rodfaifah BTS MRT
- (3) Group: Thailand Electrified Train Club

**3.3.2.3 Twitter:** The questionnaire will be posted with the hashtag #BTS #BTSSkyTrain #บีทีเอส #รถไฟฟ้า

**3.3.2.4 Other social network platforms:** such as, LINE Application

### 3.4 Identification of Key Research Variables (see Figure 3.1)

Relationship of Independent variables and dependent variables are described below.



**Figure 3.1: Relationship of Independent variables and Dependent Variables**

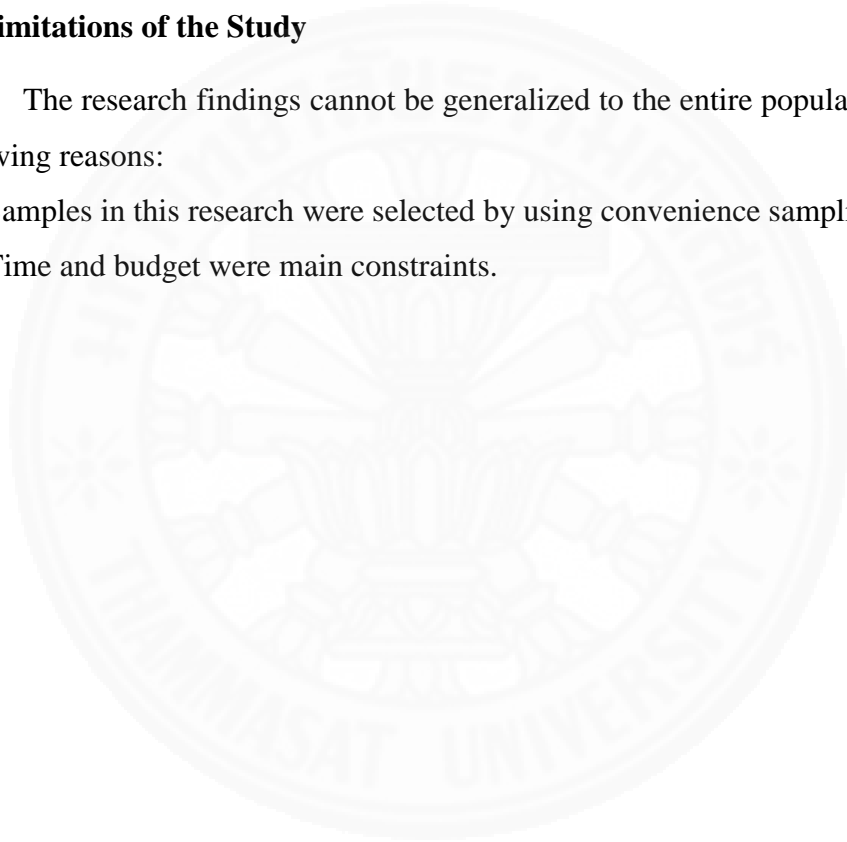
### **3.5 Data Analysis**

Before analysis, all questionnaires were coded and entered electronically. The Statistical Package for the Social Sciences (SPSS) and Microsoft Excel Program were used to analyze data from the questionnaire and focused on frequency analysis, mean comparisons, factor analysis, cluster analysis, and other appropriate statistical analysis.

### **3.6 Limitations of the Study**

The research findings cannot be generalized to the entire population due to the following reasons:

- Samples in this research were selected by using convenience sampling method.
- Time and budget were main constraints.



## CHAPTER 4

### RESULTS AND DISCUSSION

#### 4.1 Key Results from Secondary Research

BTS SkyTrain desires to increase ridership growth by 3-5% over five years. This goal might prove difficult to achieve as the latest customer satisfaction survey gave disappointing results. Many problems with BTS SkyTrain services are highlighted daily on Pantip and Twitter social media sites such as system errors and lack of facilities for disabled people. Previous research concerning BTS customers found that most passengers who used the BTS SmartPass were female and convenience, speed, and safety were all important factors. However, the data were collected many years ago. This study, therefore, determined the current passenger assessment of the BTS transport system.

#### 4.2 Key Results from In-depth Interviews

The in-depth interviews were conducted by face-to-face communication and by telephone with eight respondents (see Table 4.1). Target respondents were Thai passengers living, studying, or working in Bangkok, especially in the central business district (CBD) and residential areas. General profiles of respondents were as follows:

Number	Gender	Age	Occupation	Frequency of riding BTS per week
1	Female	57	Employee	5 times/ week
2	Female	28	Employee	12-15 times/ week
3	Female	27	Employee	10 times/ week
4	Male	23	Own Business	3-5 times/ week
5	Male	59	Own Business	1 time/ week
6	Female	25	Freelance	5-8 times/ week
7	Male	30	Own Business	10-12 times/ week
8	Female	28	Freelance	3-5 times/ week

**Table 4.1: General Profile of Respondents**



#### **4.2.1 Customer attitudes toward the procedure before passing through the BTS SkyTrain automatic station gates (Objective 2a)**

Three respondents stated that staff at the counter were inactive and needed to improve their service mindsets. Most respondents loved the food and beverage shops at the stations because they were very convenient for grab and go. However, two respondents mentioned that the limited area caused congestion when people stopped to shop along the walkway during the rush hour. It would be better if the BTS established lines demarcating walking traffic throughout. Moreover, interestingly, one respondent who rode the BTS SkyTrain every day noted that when it rained, the BTS had no plastic bags for passengers to pack umbrellas, and station floors and trains quickly became wet and dirty.

#### **4.2.2 Customer attitudes toward the services received while on BTS SkyTrain platforms (Objective 2b)**

Most respondents agreed that station guards who checked bags near the automatic doors were ineffective. They checked bags carelessly and did not care if they were ignored by passengers. The respondents suggested that a walk-through metal detector would be better. One respondent thought that more benches should be provided on platforms because there were long waits for trains outside of the rush hour. Most respondents appreciated the barrier between the train and the platform (see Figure 4.1) and thought that these safety barriers should be installed at every station. One of the most interesting findings was that all respondents considered the LED information boards as very useful and necessary. They wanted to know how many minutes remained before the next train, why they had to wait so long, and the nature of any problems with the BTS service. This information assisted their route planning and should be considered by BTS SkyTrain management.



**Figure 4.1: The barrier between the train and platform**

#### **4.2.3 Customer attitudes toward the services received while onboard BTS SkyTrains (Objective 2c)**

Most respondents raised problems with the air conditioning. They mentioned that BTS SkyTrain air conditioners were often broken and they could not breathe properly, especially when the train was full. When it rained, the temperature inside the train was too cold. The driver should adjust the air conditioner depending on the prevailing weather conditions. Moreover, water often dripped from the air conditioner positioned on the ceiling. Respondents requested an LED information board inside each carriage. Presently, the station name is shown in small print on the monitor but not everyone on the train can see this. Respondents also stated that the numbers of holding handles were not sufficient during the rush hour and more handles should be positioned close to the doors. Lastly, four respondents said that sometimes the driver operated the train very badly. A 23-year-old male respondent stated, “She (the driver) drove badly and my head hit the glass!”

#### **4.2.4 Customer attitudes toward the services received while exiting BTS SkyTrain stations (Objective 2d)**

Most respondents considered that the number of automatic doors was insufficient, and BTS SkyTrain management should adjust passenger directions to the automatic doors depending on the time of day. For example, there should be more exits than entrances at stations nearby popular workplaces during the rush hour. Moreover, two respondents mentioned that the automatic doors closed too fast; they were hit by the doors and this was painful.

#### **4.2.5 Customer attitudes toward the method of payment for BTS SkyTrain tickets (Objective 3a)**

Most respondents used the BTS SkyTrain Rabbit SmartPass card and topped up by cash and credit card via staff at the station counters. Only one respondent topped up the card via McDonald’s or at a food court. Lastly, a 28-year-old female respondent mentioned that she wanted to top up her card online via mobile phone but this facility was unavailable.

#### **4.2.6 Customer attitudes toward the privileges received from using the BTS SkyTrain Rabbit SmartPass card (Objective 3b)**

Most respondents said that they loved changing Rabbit points for cash or discounts from many shops and restaurants. Only one respondent had not registered for a Rabbit SmartPass card because she did not fully understand the benefits.

### **4.3 Key Results from the Questionnaire Survey**

#### **4.3.1 General Profile of Respondents**

The online questionnaire was distributed to 384 respondents via SurveyMonkey.com. From a total number of respondents, 216 respondents met the criteria for this study. (see Appendix C: General profile of respondents)

**4.3.1.1 Gender:** From 216 respondents, 88.6% were female.

**4.3.1.2 Age:** The top two age groups of the respondents were 23-30 years old (48.6%) and 31-40 years old (42.7%).

**4.3.1.3 Occupation:** The majority of the respondents (57.7%) were office workers.

**4.3.1.4 Education:** The majority of the respondents (60.9%) graduated with a bachelor's degree.

**4.3.1.5 Current Status:** The majority of the respondents (90.5%) were single.

**4.3.1.6 Monthly Income:** 42.7% of the respondents had their income within 15,000 - 30,000 baht range, while about 24.5% had theirs within 30,001 – 45,000 baht range per month.

All target respondents were BTS SkyTrain customers who had ridden the BTS SkyTrain during weekdays in the past 6 months and were in the age range of 15-40 years old.

#### **4.3.2 BTS SkyTrain customers segmented by their Lifestyle**

Factor and cluster analyses were conducted to determine respondent segments based on their lifestyle. First, factor analysis was applied to reduce 13 variables down to 4 factors (See Appendix D: Factor analysis) as trend, social, activeness, and

inactiveness. Second, cluster analysis (See Appendix E-1: Cluster analysis) was used to develop segmentation. Third, after applying cluster analysis, results were classified into 3 groups of passengers as Active, Socially Oriented, and Variety Seeking. Frequency analysis and chi-square were used to present the demographics of each segment and test statistically significant differences among them at the 95% confidence level. Results determined no significant differences among the 3 segments. (See Appendix E-2: Demographic of each segment).

### **4.3.3 Characteristics of each segment**

The 216 respondents were divided into three segments as follows:

#### **4.3.3.1 Segment 1: Active Passengers (24.54%, n=53)**

For active passengers, 83.0% were female. They were mostly 23-30 years old (52.8%) and 31-40 years old (45.3%). The majority (52.8%) were office workers and 47.2% had an income of 15,000-30,000 baht.

For their ridership behavior, most of them (34.0%) spent 46-60 baht per day on the BTS SkyTrain and 36.0% rode the BTS 1-4 times per week. They often rode the BTS in the evening (34.0%) and always went home by the BTS (35.8%). Lastly, the majority of them (58%) added money by cash.

These passengers followed an active lifestyle and enjoyed traveling to many places in their free time to explore and discover new experiences. They loved visiting museums and archeological sites in other provinces and participated in outdoor and adventurous activities. They did not like to stay at home during weekends and did not care that much about trendy activities and socialization.

#### **4.3.3.2 Segment 2: Socially Oriented Passengers (49.07%, n=106)**

Socially oriented passengers were the largest segment and 87.7% were female. They were mostly 23-30 years old (47.2%). The majority (59.4%) were office workers and 38.7% had an income of 15,000-30,000 baht. This segment had the highest personal income (14.2%).

For their ridership behavior, most of them (29.2%) spent 46-60 Baht per day on the BTS SkyTrain and 45.0% rode the BTS less than once a week. They often rode the BTS in the evening (31.0%) and always went home by the BTS

(35.8%). Lastly, the majority of them (57%) added money by cash and the next below was that they did not use the BTS SmartPass card because they rarely rode the BTS.

These passengers loved social activities. They were addicted to social media and spend hours every day on Facebook, Instagram, and Twitter. They maintained e-connection with their friends and hung out with them during their free time. They loved having fun and joyful moments in a crowd such as attending concerts, performances and events. They had a moderate interest in trendy things and were happy to live their lives at a slow pace. They expressed low interest in outdoor and adventurous activities.

#### **4.3.3.3 Segment 3: Variety Seeking Passengers (26.39%, n=57)**

For variety seeking passengers, 96.5% were female. They were mostly 23-30 years old (47.4%). The majority (59.6%) were office workers and 42.6% had an income of 15,000-30,000 baht.

For their ridership behavior, this was the segment that spent the most on the BTS SkyTrain. 24.6% of them spent over 90 baht per day and another 24.6% of them spent at 46-60 baht per day. The majority of them (35.0%) rode the BTS 1-4 times per week and often rode the BTS in the evening (29.0%) to go home (47.4%). Lastly, the majority of them (59%) added money by cash while 26.0% added money by a credit card.

Passengers in this segment had varied interests including trends, socializing, activeness, or inactiveness. They loved social media, fashion, and technology. They were adaptable and could either stay at home to watch a TV series and live the slow life or hang out with friends and attend concerts or outdoor activities. They also loved trying out new things and discovering fresh experiences.

### **4.3.4 : Customer attitudes toward services that BTS offers during the trip (Objective 2)**

#### **4.3.4.1 Customer attitudes toward the process before getting into the automatic gate of the station (Objective 2a)**

The respondents were asked about their opinion towards the process before getting to the automatic gate of the station based on five-point scales of

agreement. These questions helped to identify issues BTS consumers have before they get to the automatic gate. Therefore, the issues were not identified merely by the top three mean scores; it depended on the meaning of each statement. Some issues that were identified had the highest mean score, while some issues had the lowest mean.

From the results, the three main issues that the passengers were concerned about BTS Skytrain services were: The BTS should provide a plastic bag for an umbrella when it rains ( $M_{\text{Total Mean}} = 4.26$ ); The facilities for disabled people are available ( $M_{\text{Total Mean}} = 2.77$ ); and The number of the automatic gates are enough ( $M_{\text{Total Mean}} = 2.90$ ). For the last two issues, they imply that the facilities for disabled people are not available as it is supposed to be and the number of the automatic gates are not enough. Means scores (five points scales) for each segment and all passenger are displayed in Table 4.2.

Statements	Active Passengers (n = 53)		Socially Oriented Passengers (n = 106)		Variety Seeking Passengers (n = 57)		Overall (n = 216)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
A staff at the counter is friendly.	3.08	0.65	3.25	1.07	3.51	1.31	3.26	1.07
A staff at the counter is active.	3.38	0.79	3.51	1.08	3.82	1.20	3.55	1.06
A staff at the counter is always available.	3.45	0.82	3.89	1.09	4.19	0.91	3.83	1.04
The information signage is easy to understand.	3.51	0.72	3.65	1.04	3.86	1.13	3.66	1.00
The number of the automatic gates are enough.	2.64	1.02	2.87	1.24	3.18	1.39	2.90	1.23
The BTS should provide a plastic bag for an umbrella when it rains.	3.94	1.05	4.35	0.82	4.39	0.96	4.26	0.93
The facilities for disabled people are available.	2.47	0.95	2.89	1.37	2.88	1.52	2.77	1.33

**Table 4.2: Summary of different between segments for customer attitudes toward the process before getting into the automatic gate of the station**

After testing for significant differences among the three means via an Analysis of Variance (ANOVA) (See Appendix F-1: ANOVA table of three segments, Appendix F-2: Post Hoc test table), there were two variables that had significant differences among the three means as follows:

- “A staff at the counter is always available” was significantly different among the three segments ( $F(2,213) = 7.83, p < .05$ ). The mean score of Variety Seeking Passengers ( $M_{\text{Variety Seeking Passengers}} = 4.19$ ) was significantly higher than the mean score of Active Passengers ( $M_{\text{Active Passengers}} = 3.45$ ). However, there was no significant difference between the mean score of Variety Seeking Passengers and the mean score of Social Oriented Passengers ( $M_{\text{Socially Oriented Passengers}} = 3.89$ ).

- “The BTS should provide a plastic bag for an umbrella when it rains” was significantly different among the three segments ( $F(2,213) = 4.12, p < .05$ ). The mean score of Variety Seeking Passengers ( $M_{\text{Variety Seeking Passengers}} = 4.39$ ) was significantly higher than the mean score of Active Passengers ( $M_{\text{Active Passengers}} = 3.94$ ). However, there was no significant difference between the mean score of Variety Seeking Passengers and the mean score of Social Oriented Passengers ( $M_{\text{Socially Oriented Passengers}} = 4.35$ ).

#### **4.3.4.2 Customer attitudes toward the services that they receive while on the platform (Objective 2b)**

The respondents were asked about their opinion towards the services that they receive while on the platform based on five-point scales of agreement.

From the results, the three main issues that the passengers were concerned about BTS Skytrain services were: I think there should be the LED information board to notify what time the train will come ( $M_{\text{Total Mean}} = 4.72$ ); I think the barrier between the platform and the train is important ( $M_{\text{Total Mean}} = 4.67$ ); and A guard who is in charge of checking a bag is effective ( $M_{\text{Total Mean}} = 2.20$ ). The last issue got the lowest score. Therefore, it could implied that a guard who is in charge of checking a bag is not effective. Means scores (five points scales) are distributed according to each segment in Table 4.3.

Statements	Active Passengers (n = 53)		Socially Oriented Passengers (n = 106)		Variety seeking Passengers (n = 57)		Overall (n = 216)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
A guard who is in charge of checking a bag is effective.	1.96	0.88	2.37	1.31	2.14	1.48	2.20	1.27
I do not have to wait for so long for the train.	3.23	1.07	3.06	1.19	3.93	1.03	3.32	1.18
The number of benches are enough.	2.15	0.89	2.11	1.09	2.54	1.54	2.23	1.18
I think the barrier between the platform and the train is important.	4.57	0.75	4.64	0.78	4.84	0.45	4.67	0.71
I think there should be the LED information board to notice what time the train will come.	4.53	0.72	4.73	0.58	4.88	0.38	4.72	0.58

**Table 4.3: Summary of results for customer attitudes toward the services that they receive while on the platform.**

After testing for significant differences among three means via an ANOVA (See Appendix F-3: ANOVA table of three segments, Appendix F-4: Post Hoc test table), there were two variables that had significant differences among the three means as follows:

- “I do not have to wait for so long for the train” was significantly different among the three segments ( $F(2,213) = 11.58, p < .05$ ). The mean score of Variety Seeking Passengers ( $M_{\text{Variety Seeking Passengers}} = 3.39$ ) was significantly higher than the mean score of Active Passengers ( $M_{\text{Active Passengers}} = 3.23$ ) and the mean score of Social Oriented Passengers ( $M_{\text{Socially Oriented Passengers}} = 3.06$ ).

- “There should be the LED information board to notice what time the train will come” was significantly different among the three segments ( $F(2,213) = 5.08, p < .05$ ). The mean score of Variety Seeking Passengers ( $M_{\text{Variety Seeking Passengers}} = 4.88$ ) was significantly higher than the mean score of Active Passengers ( $M_{\text{Active Passengers}} = 4.53$ ). However, there was no significant difference



between the mean score of Variety Seeking Passengers and the mean score of Social Oriented Passengers ( $M_{\text{Socially Oriented Passengers}} = 4.73$ ).

#### 4.3.4.3 Customer attitudes toward the services that they receive while onboard the BTS (Objective 1c)

The respondents were asked about their opinion towards the services that they receive while onboard the BTS based on five-point scales of agreement.

From the results, the three main issues that the passengers were concerned about BTS Skytrain services were: I can see the station name clearly ( $M_{\text{Total Mean}} = 2.80$ ); The number of handles are enough ( $M_{\text{Total Mean}} = 2.85$ ); and A driver can drive the train smoothly ( $M_{\text{Total Mean}} = 3.22$ ). The first two issues imply that they cannot see the station name clearly and the number of handles are not enough. Means scores (five points scales) are distributed according to each segment in Table 4.4.

Statements	Active Passengers (n = 53)		Socially Oriented Passengers (n = 106)		Variety seeking Passengers (n = 57)		Overall (n = 216)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
I do not face with system error often.	2.94	1.12	3.33	1.31	3.46	1.46	3.26	1.32
A driver can drive the train smoothly.	3.11	0.87	3.15	1.24	3.53	1.30	3.22	1.19
The quality of loudspeaker is clear.	3.21	0.93	3.53	1.16	3.82	1.24	3.52	1.14
The number of handles are enough.	2.87	0.92	2.78	1.19	2.95	1.37	2.85	1.18
The air conditioner works well.	3.42	0.75	3.79	.96	4.00	1.13	3.75	0.99
There is some water that drops from the air conditioner.	3.15	1.39	2.71	1.47	2.88	1.76	2.87	1.55
The temperature is proper.	3.28	0.74	3.34	1.10	3.75	1.14	3.44	1.04
I can see the station name clearly.	2.75	0.90	2.69	1.25	3.07	1.57	2.80	1.27

**Table 4.4: Summary of results for customer attitudes toward the services that they receive while onboard the BTS.**

After testing for significant differences among three means via an ANOVA (See Appendix F-5: ANOVA table of three segments, Appendix F-6: Post Hoc test table), there were three variables that had significant differences among the three means as follows:

- “The quality of loudspeaker is clear” was significantly different among the three segments ( $F(2,213) = 4.07, p < .05$ ). The mean score of Variety Seeking Passengers ( $M_{\text{Variety Seeking Passengers}} = 3.82$ ) was significantly higher than the mean score of Active Passengers ( $M_{\text{Active Passengers}} = 3.21$ ). However, there was no significant difference between the mean score of Variety Seeking Passengers and the mean score of Social Oriented Passengers ( $M_{\text{Socially Oriented Passengers}} = 3.53$ ).

- “The air conditioner works well” was significantly different among the three segments ( $F(2,213) = 5.21, p < .05$ ). The mean score of Variety Seeking Passengers ( $M_{\text{Variety Seeking Passengers}} = 4.00$ ) was significantly higher than the mean score of Active Passengers ( $M_{\text{Active Passengers}} = 3.42$ ). However, there was no significant difference between the mean score of Variety Seeking Passengers and the mean score of Social Oriented Passengers ( $M_{\text{Socially Oriented Passengers}} = 3.79$ ).

- “The temperature is proper” was significantly different among the three segments ( $F(2,213) = 3.72, p < .05$ ). The mean score of Variety Seeking Passengers ( $M_{\text{Variety Seeking Passengers}} = 3.75$ ) was significantly higher than the mean score of Active Passengers ( $M_{\text{Active Passengers}} = 3.28$ ). However, there was no significant difference between the mean score of Variety Seeking Passengers and the mean score of Social Oriented Passengers ( $M_{\text{Socially Oriented Passengers}} = 3.34$ ).

#### **4.3.4.4 Customer attitudes toward the services that they receive while exiting the station (Objective 1d)**

The respondents were asked about their opinion towards the services that they receive while exiting the station based on five-point scales of agreement.

From the results, the main issue that the passengers were concerned about BTS Skytrain services was that there are not enough automatic gates. ( $M_{\text{Total Mean}} = 2.91$ ). This issue got the lowest score. Therefore, it implies that the number of automatic gates are not enough. Means scores (five points scales) are distributed according to each segment in Table 4.5.

Statements	Active Passengers (n = 53)		Socially Oriented Passengers (n = 106)		Variety seeking Passengers (n = 57)		Overall (n = 216)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
The number of automatic gates are enough.	2.74	.86	2.88	1.21	3.14	1.41	2.91	1.19
I get a queue jumping from others.	3.11	1.17	3.10	1.41	3.58	1.44	3.25	1.37
I used to get hit by the automatic door.	3.15	1.32	3.14	1.62	3.47	1.66	3.23	1.56

**Table 4.5: Summary of results for customer attitudes toward the services that they receive while exiting the station**

After testing for significant differences among three means via an ANOVA, there were no significant differences among the three means as follows:

- “The number of automatic gates are enough” was not significantly different among the three segments ( $F(2,213) = 1.67, p > .05$ ).
- “I get a queue jumping from other” was not significantly different among the three segments ( $F(2,213) = 2.51, p > .05$ ).
- “I used to get hit by the automatic door” was not significantly different among the three segments ( $F(2,213) = 0.93, p > .05$ ).

#### **4.3.5 : Customer attitudes toward the usage of the Rabbit SmartPass card system (Objective 3)**

##### **4.3.5.1 Customer attitudes toward the method of payment (Objective 3a)**

The respondents were asked about their opinion towards the method of payment based on five-point scales of agreement.

From the results, the three main issues that the passengers were concerned about BTS Skytrain services were: I hope I could add money via mobile application ( $M_{\text{Total Mean}} = 4.46$ ); I agree when the BTS cancelled adding money with a credit card ( $M_{\text{Total Mean}} = 2.36$ ); and A payment method is convenient for me ( $M_{\text{Total Mean}} = 3.15$ ). For the second issue, it implies that the customers disagree when the

BTS cancelled adding money by using a credit card. Means scores (five points scales) are distributed according to each segment in Table 4.6.

Statements	Active Passengers (n = 53)		Socially Oriented Passengers (n = 106)		Variety seeking Passengers (n = 57)		Overall (n = 216)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
A payment method is convenient for me.	3.08	1.03	2.90	1.41	3.74	1.34	3.15	1.35
I think the payment method is safety.	3.47	.67	3.66	1.04	4.11	.94	3.71	0.98
I hope I could add money via mobile application.	4.23	.78	4.46	.76	4.63	.77	4.46	0.77
I agree when the BTS cancelled adding money with a credit card.	2.26	1.02	2.53	1.52	2.16	1.46	2.36	1.40

**Table 4.6: Summary of results for customer attitudes toward the method of payment**

After testing for significant differences among three means via an ANOVA (See Appendix F-7: ANOVA table of three segments, Appendix F-8: Post Hoc test table), there were three variables that had significant differences among the three means as follows:

- “A payment method is convenient for me” was significantly different among the three segments ( $F(2,213) = 7.81, p < .05$ ). The mean score of Variety Seeking Passengers ( $M_{\text{Variety Seeking Passengers}} = 3.74$ ) was significantly higher than the mean score of Active Passengers ( $M_{\text{Active Passengers}} = 3.08$ ) and the mean score of Social Oriented Passengers ( $M_{\text{Socially Oriented Passengers}} = 2.90$ ).

- “I think the payment method is safety” was significantly different among the three segments ( $F(2,213) = 6.90, p < .05$ ). The mean score of Variety Seeking Passengers ( $M_{\text{Variety Seeking Passengers}} = 4.11$ ) was significantly higher than the mean score of Active Passengers ( $M_{\text{Active Passengers}} = 3.47$ ) and the mean score of Social Oriented Passengers ( $M_{\text{Socially Oriented Passengers}} = 3.66$ ).

- “I hope I could add money via mobile application” was significantly different among the three segments ( $F(2,213) = 3.86, p < .05$ ). The mean score of Variety Seeking Passengers ( $M_{\text{Variety Seeking Passengers}} = 4.63$ ) was significantly higher than the mean score of Active Passengers ( $M_{\text{Active Passengers}} = 4.23$ ). However, there was no significant difference between the mean score of Variety Seeking Passengers and the mean score of Social Oriented Passengers ( $M_{\text{Socially Oriented Passengers}} = 4.46$ ).

#### 4.3.5.2 Customer attitudes toward the privileges that they receive from using the Rabbit SmartPass card (Objective 3b)

The respondents were asked about their opinion towards the privileges that they receive from using the Rabbit SmartPass card based on five-point scales of agreement.

From the results, the three main issues that the passengers were concerned about BTS Skytrain services were: I think the Rabbit machine at the station is easy to use ( $M_{\text{Total Mean}} = 2.63$ ); I know that there is a privilege of using the Rabbit SmartPass card ( $M_{\text{Total Mean}} = 3.05$ ); and I prefer a cash voucher to a discount when buying something with the Rabbit SmartPass card ( $M_{\text{Total Mean}} = 3.09$ ). For the first one, it implies that the Rabbit machine at the station is difficult to use. Means scores (five points scales) are distributed according to each segment in Table 4.7.

Statements	Active Passengers (n = 53)		Socially Oriented Passengers (n = 106)		Variety seeking Passengers (n = 57)		Overall (n = 216)	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
I know that there is a privilege of using the Rabbit SmartPass card.	2.75	1.67	2.92	1.64	3.56	1.77	3.05	1.71
I like when I can turn Rabbit points into money in the Rabbit SmartPass card.	3.55	1.29	3.51	1.58	4.04	1.39	3.65	1.46
I am satisfied with the discount for	2.98	1.20	3.10	1.54	3.70	1.44	3.23	1.44

shops and restaurants that get from the Rabbit SmartPass card.								
I think the Rabbit machine at the station is easy to use.	2.38	1.62	2.45	1.65	3.18	1.81	2.63	1.70
I prefer a cash voucher to a discount when buy something with the Rabbit SmartPass card.	2.75	1.60	2.89	1.63	3.70	1.46	3.09	1.62

**Table 4.7: Summary of results for customer attitudes toward the privilege that they receive from using the Rabbit SmartPass card**

After testing for significant differences among three means via an Analysis of Variance (ANOVA) (See Appendix F-9: ANOVA table of three segments, Appendix F-10: Post Hoc test table), there were four variables that had significant differences among the three means as follows:

- “I know that there is a privilege of using the Rabbit SmartPass card” was significantly different among the three segments ( $F(2,213) = 3.74, p < .05$ ). The mean score of Variety Seeking Passengers ( $M_{\text{Variety Seeking Passengers}} = 3.56$ ) was significantly higher than the mean score of Active Passengers ( $M_{\text{Active Passengers}} = 2.75$ ). However, there was no significant difference between the mean score of Variety Seeking Passengers and the mean score of Social Oriented Passengers ( $M_{\text{Socially Oriented Passengers}} = 2.92$ ).

- “I am satisfied with the discount for shops and restaurants that get from the Rabbit SmartPass card” was significantly different among the three segments ( $F(2,213) = 3.70, p < .05$ ). The mean score of Variety Seeking Passengers ( $M_{\text{Variety Seeking Passengers}} = 4.11$ ) was significantly higher than the mean score of Active Passengers ( $M_{\text{Active Passengers}} = 2.98$ ) and the mean score of Social Oriented Passengers ( $M_{\text{Socially Oriented Passengers}} = 3.10$ ).

- “I think the Rabbit machine at the station is easy to use” was significantly different among the three segments ( $F(2,213) = 4.17, p < .05$ ). The mean score of Variety Seeking Passengers ( $M_{\text{Variety Seeking Passengers}} = 3.18$ ) was significantly

higher than the mean score of Active Passengers ( $M_{\text{Active Passengers}} = 2.38$ ) and the mean score of Social Oriented Passengers ( $M_{\text{Socially Oriented Passengers}} = 2.45$ ).

- “I prefer a cash voucher to a discount when buy something with the Rabbit SmartPass card” was significantly different among the three segments ( $F(2,213) = 6.32, p < .05$ ). The mean score of Variety Seeking Passengers ( $M_{\text{Variety Seeking Passengers}} = 3.70$ ) was significantly higher than the mean score of Active Passengers ( $M_{\text{Active Passengers}} = 2.75$ ) and the mean score of Social Oriented Passengers ( $M_{\text{Socially Oriented Passengers}} = 2.89$ ).



## **CHAPTER 5**

### **CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Research Summary**

To summarize, the total respondents of 216 are divided into three segments based on their lifestyle. Their characteristics are listed below;

##### **5.1.1 Active Passengers**

They were mostly 23-30 years old and the rest of them were 31-40 years old. The majority of them were office workers and had an income of 15,000-30,000 baht per month. They spent 46-60 Bhat per day on the BTS SkyTrain and mostly rode the BTS in the evening to go home.

These passengers followed an active lifestyle and enjoyed traveling to discover new experiences. They did not like to stay at home and did not care that much about trendy and socialization.

##### **5.1.2 Socially Oriented Passengers**

Socially oriented passengers were the largest segment. They were mostly 23-30 years old. The majority were office workers and this segment had the highest personal income. Even though this segment was the majority of the respondents, they mostly rode the BTS less than once a week.

These passengers loved social activities. They were addicted to social media and spent hours every day on Facebook, Instagram, and Twitter. They loved hanging out with friends and having fun in a crowd. They expressed low interest in outdoor and adventurous activities.

##### **5.1.3 Variety Seeking Passengers**

Variety Seeking Passengers were mostly 23-30 years old. The majority were office workers and had an income of 15,000-30,000 baht per month. This segment spend the most on the BTS SkyTrain, which was over 90 baht per day. The majority of them rode the BTS 1-4 times per week and often rode the BTS in the evening to go home.



Passengers in this segment had varied interests including trends, socializing, activeness, or inactiveness. They loved social media, fashion, and technology. They also loved trying out new things and discovering fresh experiences.

The study revealed that there were some issues that were important for the BTS passengers. Therefore, the company should improve these in order to increase their customers' satisfaction. The main issues for each process of using the BTS SkyTrain are as follows:

1. While getting to the automatic gate of the station: There are no plastic bags to pack umbrellas provided when it rained, the number of the automatics gates are not enough especially during the rush hour, and the facilities for disabled people are not available as they were supposed to be.

2. While on the platform: There was no the LED information board to inform passengers what time the train will come, some stations have no the barrier between the platform and the train, and the guard who was in charge of checking a bag was ineffective.

3. While onboard the BTS: They cannot see the station name clearly, there are not enough handles, and the driver could not drive the train smoothly.

4. While exiting the station: There at not enough automatic gates.

The main issues for the usage of the Rabbit SmartPass card system are as follows:

1. The method of payment: They cannot add money to the Rabbit SmartPass card via mobile application, they disagree when the company cancelled adding money by using a credit card, and the payment method is inconvenient.

2. The privilege of using the Rabbit SmartPass card: The Rabbit machine at the station is difficult to use. They do not know that there was any privilege of using the Rabbit SmartPass card, and they prefer a cash voucher to a discount when buy something with the Rabbit SmartPass card.

## 5.2 Recommendations

Based on the results, the following recommendations are advised from the top three pain points that the company should consider in order to solve the customer's pain and to increase their satisfaction:

Recommendations from the top three issues of the process of using the BTS skytrain are as follows:

1. The LED information board ( $M_{\text{Total Mean}} = 4.72$ ): The company should provide the LED information board (see Figure 5.1) to notify the passengers about the exact time that the train will arrive both at the station and on the platform. They considered it as very useful and necessary because this information assists their route planning.



**Figure 5.1: Example of the LED information board from Singapore**

2. The barrier between the train and the platform ( $M_{\text{Total Mean}} = 4.67$ ): The safety barrier between the train and the platform should be installed at every station. The passengers said that “Safety” should be put as the first priority because of “Better be sure than sorry”.

3. Plastic bags to pack umbrellas ( $M_{\text{Total Mean}} = 4.26$ ): In order to avoid wet and dirty station floors and trains, the company should provide plastic bags for passenger to pack umbrellas (see Figure 5.2). They consider this as very necessary.



**Figure 5.2: Example of the umbrella bag dispenser**

Recommendations from the top two issues of the usage of the Rabbit SmartPass card system are as follows:

1. Topping up card online via mobile phone ( $M_{\text{Total Mean}} = 4.46$ ): The company should provide the facility that the passengers could top up their card online, such as a mobile application, website, etc., to make the passengers save time instead of lining up at the station.
2. Allow passengers top up the BTS SmartPass with a credit card. ( $M_{\text{Total Mean}} = 2.36$ ): Recently, the company cancelled topping up card with a credit card. Many passengers considered this inconvenience and found that it was opposed to the promotion of paying by the Rabbit SmartPass card.

Moreover, the respondents were divided into three segments. The BTS SkyTrain should treat them all as equally important. After testing for significant differences among three means via an ANOVA, they were not significantly different. The recommendations for each of the segments are as follows:

1. Active Passengers

They followed an active lifestyle and loved traveling. To target this group, the company should create a campaign that encourage them to travel by the BTS, such as generating information about attractive places, great foods near the line, hidden gems in the city, etc., in order to attract them to ride the BTS more. The BTS should set the

promotion for this campaign such as, buy 1 one day trip ticket get the other one at half price, etc.

## 2. Socially Oriented Passengers

They are addicted to social media and love hanging out with friends. To target this group, the company should create activities through social media. For example, they could have a “The BTS Lucky Draw Campaign”. When the customer tops up the Rabbit SmartPass card, they have to post a photo of the receipt with the hashtag #BTSLuckyRabbit on Facebook, Twitter, or Instagram, and then the company will draw lots to get a lucky person.

## 3. Variety Seeking Passengers

They have varied interests. They also love trying out new things and discovering fresh experiences. To target this group, the company should focus on creativity. For instance, they could create an exciting and surprising event at the Siam station. To do this, the company might organize a fashion show event with celebrities or build a pop-up dance floor with a pop star, etc., in order to make a normal day of office workers more colorful.

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**APPENDIXES**

**APPENDIX A**  
**IN-DEPTH INTERVIEWS QUESTIONS**

1. How often do you ride BTS SkyTrain during weekdays?
2. What do you like and dislike about BTS SkyTrain services and facility before getting into the automatic gate of the station?
3. What do you like and dislike about BTS SkyTrain services while waiting for the train?
4. What do you like and dislike about BTS SkyTrain services while onboard the BTS?
5. What do you like and dislike about BTS SkyTrain services while exiting the station?
6. How do you add money to your Rabbit SmartPass?
7. Do you like the privilege that you receive from Rabbit SmartPass?
8. Lifestyle questions: Hobbies, Interest, etc.
9. Demographic questions: age, gender, occupation, education, etc.



## APPENDIX B

### ONLINE QUESTIONNAIRE

Greeting!

The questionnaire is conducted for the purpose of studying only. It will be used to gather data for Independent study of Master's Degree Program in Marketing at Thammasat University which would ask your attitude towards service of the BTS SkyTrain during weekdays. This questionnaire would take approximately 10-15 minutes. Please be assured that the collected information will be reported in aggregated level. No individual information will be disclosed.

#### Screening Questions

Q1. Do you ride the BTS SkyTrain during weekdays in the past 6 months?

- Yes
- No (End of the questionnaire)

Q2. Are you the age between 15 - 40?

- Yes
- No (End of the questionnaire)

#### Section 1: The BTS SkyTrain Ridership Behavior (Objective 3b)

Q3. How often do you ride the BTS SkyTrain during weekdays?

- Less than once a week
- 1-4 times/ week
- 5-8 times/ week
- 8-12 times/ week
- More than 12 times/ week

Q4. What time do you ride the BTS SkyTrain most often? (You can choose more than one)

- 06:00 - 09:00
- 09:01 - 12:00
- 12:01 - 15:00
- 15:01 - 18:00
- 18:01 - 21:00
- 21:01 - 24:00

Q5. What is your objective of riding the BTS SkyTrain? (You can choose more than one)

- Go to school/ university
- Go to workplace

- Go to café or co-working space
- Go to meeting
- Go to shopping
- Go to travel
- Go to exercise
- Go to hang out
- Go home

Q6. What is your average spending on the BTS SkyTrain per day?

- Not sure
- Below 15 Baht
- 16-30 Baht
- 31-45 Baht
- 46-60 Baht
- 61-75 Baht
- 76-90 Baht
- Over 90 Baht

Q7. What is your Method of adding money to the BTS SmartPass Card? (You can choose more than one)

- Not using BTS SmartPass
- Cash
- Credit card
- AIS mPAY Rabbit
- Be1st Smart Rabbit
- Other

## **Section 2: The customer attitude towards services that BTS offers during the trip (Objective 2)**

Section 2-1: Customer attitudes toward the process before getting to the automatic gate of the station (Objective 2a)

Q8. Think about your experiences in the BTS station before you get to the automatic gate. How much do you agree with the following statements?

Statements	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
1. A staff at the counter is friendly.					
2. A staff at the counter is active.					
3. A staff at the counter is always available.					
4. The information signage is easy to understand.					
5. The number of the automatic gates are enough.					
6. The BTS should provide a plastic bag for an umbrella when it rains.					
7. I like the shops at the station.					
8. The facilities for disabled people are available.					

Section 2-2: Customer attitudes toward the services that they receive while on the platform (Objective 2b)

Q9. Think about your experiences while on the platform of the BTS station.

How much do you agree with the following statements?

Statements	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
1. A guard who is in charge of checking a bag is effective.					
2. I do not have to wait for so long for the train.					
3. The number of benches are enough.					
4. I think the barrier between train and platform is important.					
5. I think there should be the LED information board to notice what time the train will come.					

Section 2-3: Customer attitudes toward the services that they receive while onboard the BTS (Objective 2c)

Q10. Think about your experiences while onboard the BTS. How much do you agree with the following statements?

Statements	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
1. I do not face with system error often.					
2. A driver can drive the train smoothly.					
3. The quality of loudspeaker is clear.					
4. The number of handles are enough.					
5. The air conditioner works well.					
6. There is some water that drops from the air conditioner.					
7. The temperature is proper.					
8. I can see the station name clearly.					

Section 2-4: Customer attitudes toward the services that they receive while exiting the station (Objective 2d)

Q11. Think about your experiences while exiting the station. How much do you agree with the following statements?

Statements	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
1. The number of automatic gates are enough.					
2. I get a queue jumping from others.					
3. I used to get hit by the automatic door.					

**Section 3: Customer attitudes toward the usage of the Rabbit SmartPass card system (Objective 3)**

Section 3-1: Customer attitudes toward the method of payment (Objective 3a)

Q12. How much do you agree with the following statements?

Statements	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
1. A payment method is convenient for me.					
2. I think the payment method is safety.					
3. I hope I could add money via mobile application.					
4. I agree when the BTS cancel adding money with a credit card.					

Section 3-2: Customer attitudes toward the privilege that they receive from using the Rabbit SmartPass card (Objective 3b)

Q13. How much do you agree with the following statements?

Statements	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
1. I know that there is a privilege of using the Rabbit SmartPass card.					
2. I like when I can turn Rabbit points into money in the Rabbit SmartPass card.					
3. I am satisfied with the discount for shops and restaurants that get from the Rabbit SmartPass card.					
4. I think the Rabbit machine at the station is easy to use.					
5. I prefer a cash voucher to a discount when buy something with the Rabbit SmartPass card.					

**Section 4: The target consumers and their profiles for the BTS SkyTrain  
(Objective 1)**

Section 4-1: Lifestyle (Objective 1b)

Q14. How much do you agree with the following statements?

Statements	1 Strongly disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly agree
1. I love to drive a car by myself even though there is a traffic jam.					
2. I love fashion					
3. I love staying at home when I have free time.					
4. I love hanging out with friends.					
5. I love outdoor activities.					
6. I love going to the recommended restaurant even though it is far away to the BTS.					
7. I love trying new things.					
8. I love going to the concert.					
9. I am a social media lover.					
10. I always keep up to date with technology.					
11. I love to slow down and enjoy life.					
12. I love traveling to other provinces.					
13. I love going to the museums and archaeological site.					

Section 4-2: Demographic (Objective 1a)

Q15. What is your gender?

- Male
- Female
- Other

Q16. What is your age?

- 15-22
- 23-30
- 31-40

Q17. What is your occupation?

- Student
- Employee
- Government Sector
- Own Business
- Freelance
- Others

Q18. What is your education?

- Below Bachelor Degree
- Bachelor Degree
- Master Degree
- Doctoral Degree

Q19. What is your current status?

- Single
- Married (with kids)
- Married (without kids)
- Separated
- Divorced
- Other

Q19. What is your income?

- Below 15,000 THB
- 15,001 – 30,000 THB
- 30,001 – 45,000 THB
- 45,001 – 60,000 THB
- Above 60,000 THB

**- End of Survey -**

## APPENDIX C

### SUMMARY OF RESPONDENTS PROFILE (n = 216)

Demographics		Frequency	Percentage
Gender	Male	25	11.4
	Female	195	88.6
Age	15-22 years old	19	8.6
	23-30 years old	107	48.6
	31-50 years old	94	42.7
Occupation	Student	30	13.6
	Office Worker	127	57.7
	Government Officer	18	8.2
	Business Owner	16	7.3
	Freelance	8	3.6
	Other	21	9.5
Education	Below Bachelor Degree	19	8.6
	Bachelor Degree	134	60.9
	Master Degree	64	29.1
	Doctoral Degree	3	1.4
Monthly Income	Less than 15,000 THB	32	14.5
	15,000 - 30,000 THB	94	42.7
	30,001 - 45,000 THB	54	24.5
	45,001 - 60,000 THB	15	6.8
	More than 60,001 THB	25	11.4



## APPENDIX D

### FACTOR ANALYSIS

#### Rotated Component Matrix

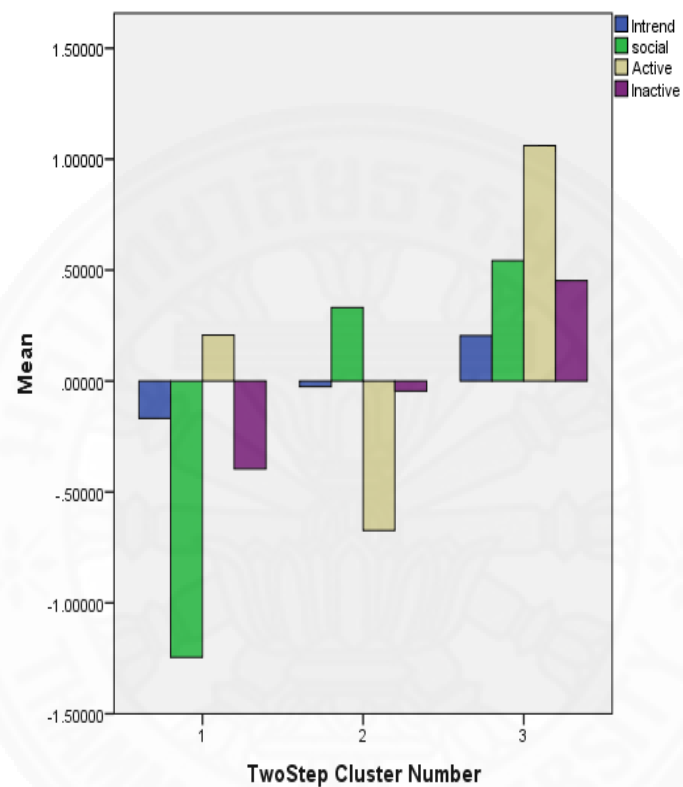
	Component			
	1	2	3	4
I love going to the recommended restaurant even though it is far away to the BTS.	.667			
I love to drive a car by myself even though there is a traffic jam.	.551			
I love fashion.	.551	.452		
I always keep up to date with technology.	.525			.359
I love trying new things.	.499			
I am a social media lover.		.768		
I love going to the concert.		.766		
I love outdoor activities.			.735	
I love traveling to other provinces.		.312	.642	
I love going to the museums and archaeological sites.			.634	.314
I love living the slow life.				.724
I love staying at home when I have free time.				.645
I love hanging out with friends.		.307		-.350

## APPENDIX E

### CLUSTER ANALYSIS

#### APPENDIX E-1: Cluster Analysis Result

##### Final Cluster Center



##### Number of Cases in each Cluster

		Frequency	Percentage
Cluster	Active Passengers	53	24.1%
	Socially Oriented Passengers	106	48.2%
	Variety Seeking Passengers	57	25.9%
Valid		216	98.2%
Missing		4	1.8%

**APPENDIX E-2: Demographic Profile of Three Clusters**

Demographic		Active Passengers (n = 53)		Socially Oriented Passengers (n = 106)		Variety Seeking Passengers (n = 57)	
		n	%	n	%	n	%
Gender	Male	9	17%	13	12%	2	4%
	Female	44	83%	93	88%	55	96%
		53	100%	106	100%	57	100%
Age	15-22 years old	1	2%	11	10%	6	10%
	23-30 years old	28	53%	50	47%	27	47%
	31-50 years old	24	45%	45	43%	24	43%
			53	100%	106	100%	57
Occupation	Student	5	10%	14	13%	10	18%
	Office Worker	28	53%	63	59%	34	60%
	Government Officer	6	11%	6	6%	6	10%
	Business Owner	5	9%	9	8%	2	4%
	Freelance	2	4%	5	5%	0	0%
	Other	7	13%	9	9%	5	8%
			53	100%	106	100%	57
Education	Below Bachelor Degree	1	2%	11	10%	6	10%
	Bachelor Degree	35	66%	59	56%	37	65%
	Master Degree	17	32%	34	32%	13	23%
	Doctoral Degree	0	0%	2	2%	1	2%
			53	100%	106	100%	57
Monthly Income	Less than 15,000 THB	4	8%	20	19%	7	12%
	15,000 - 30,000 THB	25	47%	41	39%	26	45%
	30,001 - 45,000 THB	13	25%	25	24%	15	26%
	45,001 - 60,000 THB	5	9%	5	4%	5	9%
	More than 60,001 THB	6	11%	15	14%	4	7%
			53	100%	106	100%	57

## APPENDIX F

### ANALYSIS OF VARIANCE

**APPENDIX F-1:** ANOVA table of three cluster

		Sum of Squares	df	Mean Square	F	Sig.
A staff at the counter is always available.	Between Groups	15.183	2	7.591	7.825	.001
	Within Groups	206.651	213	.970		
	Total	221.833	215			
The BTS should provide a plastic bag for an umbrella when it rains.	Between Groups	7.058	2	3.529	4.213	.016
	Within Groups	178.424	213	.838		
	Total	185.481	215			

**APPENDIX F-2:** Post Hoc test table of three cluster

Dependent Variable	I	J	Mean Difference (I-J)	Std. E	Sig.
A staff at the counter is always available.	Active Passengers	Social Oriented Passengers	-.43396*	.16571	.026
		Variety Seeking Passengers	-.74015*	.18795	.000
	Social Oriented Passengers	Active Passengers	.43396*	.16571	.026
		Variety Seeking Passengers	-.30619	.16178	.143
	Variety Seeking Passengers	Active Passengers	.74015*	.18795	.000
		Social Oriented Passengers	.30619	.16178	.143

The BTS should provide a plastic bag for an umbrella when it rains.	Active Passengers	Social Oriented Passengers	-.40566*	.15397	.024
		Variety Seeking Passengers	-.44257*	.17465	.032
	Social Oriented Passengers	Active Passengers	.40566*	.15397	.024
		Variety Seeking Passengers	-.03691	.15033	.967
	Variety Seeking Passengers	Active Passengers	.44257*	.17465	.032
		Social Oriented Passengers	.03691	.15033	.967

**APPENDIX F-3: ANOVA table of three cluster**

		Sum of Squares	df	Mean Square	F	Sig.
I do not have to wait for so long for the train.	Between Groups	28.999	2	14.500	11.582	.000
	Within Groups	266.663	213	1.252		
	Total	295.662	215			
I think there should be the LED information board to notice what time the train will come.	Between Groups	3.359	2	1.680	5.081	.007
	Within Groups	70.414	213	.331		
	Total	73.773	215			

**APPENDIX F-4: Post Hoc test table of three cluster**

Dependent Variable	I	J	Mean Difference (I-J)	Std. E	Sig.
A staff at the counter is always available.	Active Passengers	Social Oriented Passengers	.16981	.18823	.640
		Variety Seeking Passengers	-.70341*	.21351	.003
	Social Oriented Passengers	Active Passengers	-.16981	.18823	.640
		Variety Seeking Passengers	-.87322*	.18378	.000

	Variety Seeking Passengers	Active Passengers	.70341*	.21351	.003
		Social Oriented Passengers	.87322*	.18378	.000
The BTS should provide a plastic bag for an umbrella when it rains.	Active Passengers	Social Oriented Passengers	-.40566*	.15397	.024
		Variety Seeking Passengers	-.44257*	.17465	.032
	Social Oriented Passengers	Active Passengers	.40566*	.15397	.024
		Variety Seeking Passengers	-.03691	.15033	.967
	Variety Seeking Passengers	Active Passengers	.44257*	.17465	.032
		Social Oriented Passengers	.03691	.15033	.967

**APPENDIX F-5: ANOVA table of three cluster**

		Sum of Squares	df	Mean Square	F	Sig.
The quality of loudspeaker is clear.	Between Groups	10.456	2	5.228	4.07	.018
	Within Groups	273.378	213	1.283		
	Total	283.833	215			
The air conditioner works well.	Between Groups	9.693	2	4.847	5.21	.006
	Within Groups	198.302	213	.931		
	Total	207.995	215			
The temperature is proper.	Between Groups	8.003	2	4.001	3.72	.026
	Within Groups	229.090	213	1.076		
	Total	237.093	215			

**APPENDIX F-6: Post Hoc test table of three cluster**

Dependent Variable	I	J	Mean Difference (I-J)	Std. E	Sig.
	Active Passengers	Social Oriented Passengers	-.32075	.17036	.175

The quality of loudspeaker is clear.		Variety Seeking Passengers	-.61701*	.20795	.011
	Social Oriented Passengers	Active Passengers	.32075	.17036	.175
		Variety Seeking Passengers	-.29626	.19954	.365
	Variety Seeking Passengers	Active Passengers	.61701*	.20795	.011
		Social Oriented Passengers	.29626	.19954	.365
The air conditioner works well	Active Passengers	Social Oriented Passengers	-.37736	.16232	.055
		Variety Seeking Passengers	-.58491*	.18412	.005
	Social Oriented Passengers	Active Passengers	.37736	.16232	.055
		Variety Seeking Passengers	-.20755	.15848	.391
	Variety Seeking Passengers	Active Passengers	.58491*	.18412	.005
		Social Oriented Passengers	.20755	.15848	.391
The temperature is proper.	Active Passengers	Social Oriented Passengers	-.05660	.14803	.974
		Variety Seeking Passengers	-.47137*	.18211	.033
	Social Oriented Passengers	Active Passengers	.05660	.14803	.974
		Variety Seeking Passengers	-.41476	.18497	.079
	Variety Seeking Passengers	Active Passengers	.47137*	.18211	.033
		Social Oriented Passengers	.41476	.18497	.079

**APPENDIX F-7: ANOVA table of three cluster**

		Sum of Squares	df	Mean Square	F	Sig.
A payment method is convenient for me.	Between Groups	26.719	2	13.360	7.805	.001
	Within Groups	364.609	213	1.712		
	Total	391.329	215			

I think the payment method is safety.	Between Groups	12.076	2	6.038	6.902	.001
	Within Groups	186.350	213	.875		
	Total	198.426	215			
I hope I could add money via mobile application.	Between Groups	4.545	2	2.272	3.875	.022
	Within Groups	124.895	213	.586		
	Total	129.440	215			

**APPENDIX F-8:** Post Hoc test table of three cluster

Dependent Variable	I	J	Mean Difference (I-J)	Std. E	Sig.
A payment method is convenient for me.	Active Passengers	Social Oriented Passengers	.17925	.19719	.744
		Variety Seeking Passengers	-.66137*	.22775	.013
	Social Oriented Passengers	Active Passengers	-.17925	.19719	.744
		Variety Seeking Passengers	-.84062*	.22435	.001
	Variety Seeking Passengers	Active Passengers	.66137*	.22775	.013
		Social Oriented Passengers	.84062*	.22435	.001
I think the payment method is safety.	Active Passengers	Social Oriented Passengers	-.18868	.13654	.426
		Variety Seeking Passengers	-.63357*	.15455	.000
	Social Oriented Passengers	Active Passengers	.18868	.13654	.426
		Variety Seeking Passengers	-.44489*	.16028	.019
	Variety Seeking Passengers	Active Passengers	.63357*	.15455	.000
		Social Oriented Passengers	.44489*	.16028	.019
I hope I could add money via mobile application.	Active Passengers	Social Oriented Passengers	-.23585	.12882	.162
		Variety Seeking Passengers	-.40516*	.14612	.017
	Social Oriented Passengers	Active Passengers	.23585	.12882	.162



		Variety Seeking Passengers	-.16931	.12577	.371
	Variety Seeking Passengers	Active Passengers	.40516*	.14612	.017
		Social Oriented Passengers	.16931	.12577	.371

**APPENDIX F-9:** ANOVA table of three cluster

		Sum of Squares	df	Mean Square	F	Sig.
I know that there is a privilege of using the Rabbit SmartPass card.	Between Groups	21.197	2	10.599	3.742	.025
	Within Groups	603.243	213	2.832		
	Total	624.440	215			
I am satisfied with the discount for shops and restaurants that get from the Rabbit SmartPass card.	Between Groups	17.656	2	8.828	4.286	.015
	Within Groups	438.769	213	2.060		
	Total	456.426	215			
I think the Rabbit machine at the station is easy to use.	Between Groups	23.662	2	11.831	4.166	.017
	Within Groups	604.963	213	2.840		
	Total	628.625	215			
I prefer a cash voucher to a discount when buy something with the Rabbit SmartPass card.	Between Groups	31.576	2	15.788	6.317	.002
	Within Groups	532.383	213	2.499		
	Total	563.958	215			

**APPENDIX F-10:** Post Hoc test table of three cluster

Dependent Variable	I	J	Mean Difference (I-J)	Std. E	Sig.
I know that there is a privilege of using the Rabbit SmartPass card.	Active Passengers	Social Oriented Passengers	-.16981	.28312	.820
		Variety Seeking Passengers	-.80669*	.32113	.034
	Social Oriented Passengers	Active Passengers	.16981	.28312	.820

		Variety Seeking Passengers	-.63688	.27641	.057
	Variety Seeking Passengers	Active Passengers	.80669*	.32113	.034
		Social Oriented Passengers	.63688	.27641	.057
I am satisfied with the discount for shops and restaurants that get from the Rabbit SmartPass card.	Active Passengers	Social Oriented Passengers	-.12264	.24145	.868
		Variety Seeking Passengers	-.72062*	.27387	.025
	Social Oriented Passengers	Active Passengers	.12264	.24145	.868
		Variety Seeking Passengers	-.59798*	.23574	.032
	Variety Seeking Passengers	Active Passengers	.72062*	.27387	.025
		Social Oriented Passengers	.59798*	.23574	.032
I think the Rabbit machine at the station is easy to use.	Active Passengers	Social Oriented Passengers	-.12264	.22243	.927
		Variety Seeking Passengers	-.72062*	.25204	.015
	Social Oriented Passengers	Active Passengers	.12264	.22243	.927
		Variety Seeking Passengers	-.59798*	.24205	.044
	Variety Seeking Passengers	Active Passengers	.72062*	.25204	.015
		Social Oriented Passengers	.59798*	.24205	.044
I prefer a cash voucher to a discount when buy something with the Rabbit SmartPass card.	Active Passengers	Social Oriented Passengers	-.07547	.28352	.962
		Variety Seeking Passengers	-.79808*	.32158	.037
	Social Oriented Passengers	Active Passengers	.07547	.28352	.962
		Variety Seeking Passengers	-.72261*	.27681	.026
	Variety Seeking Passengers	Active Passengers	.79808*	.32158	.037
		Social Oriented Passengers	.72261*	.27681	.026

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