

Tourists' Satisfaction of Public Transport Use in Phuket

ความพึงพอใจของนักท่องเที่ยวที่มีต่อการใช้บริการรถโดยสาร สาธารณะในจังหวัดภูเก็ต

Haswanee Langkaweekate¹

Chidchanok Anantamongkolkul^{2*}

Nasrin Supornhemhira¹

Duangthai soottapun¹

Nuttapat Kasetwatanapol¹

Abstract

Public transport is an important basic infrastructure required for tourists. Phuket is a world-class destination for travelers around the world. Phuket also provides variety of public transports to accommodate passengers. However, limited studies have investigated tourist satisfaction with public transport at this destination. The purpose of this study is to measure tourist satisfaction of public transport use in Phuket. The respondents in this research were those international tourists who used public transport, especially the local bus called Songteaw. A 200 usable questionnaire was then obtained. Descriptive analysis suggested most of the public transport users in Phuket were first-time travelers, and they traveled with friends and family. The key reason for using public transport was cost. It was found that the highest level of tourist satisfaction with service quality was the attribute of other passengers' behavior and availability of seats. In addition, factor analysis suggested three attributes of public transport service in Phuket, namely, Management system, Comfort, and Driver. The iterative regression analysis showed Driver and Management system significantly contributed to public transport user recommendation. Practical implications are suggested.

Keywords: tourist satisfaction, Phuket, public transport, tourist behavior

¹ Bachelor of Business Administration, Phuket Rajabhat University

² Ph.D., Faculty of Management Science, Phuket Rajabhat University

* corresponding author: chidchanok.a@pkru.ac.th



บทคัดย่อ

การขนส่งสาธารณะเป็นโครงสร้างพื้นฐานที่มีความสำคัญต่อนักท่องเที่ยว จังหวัดภูเก็ตเป็นจุดหมายปลายทางการท่องเที่ยวสำหรับนักท่องเที่ยวทั่วโลก ซึ่งมีการให้บริการขนส่งสาธารณะหลากหลายรูปแบบในการรองรับผู้โดยสาร อย่างไรก็ตาม การศึกษาความพึงพอใจของนักท่องเที่ยวเกี่ยวกับการขนส่งสาธารณะในจังหวัดภูเก็ตยังมีจำนวนจำกัด ดังนั้น จุดประสงค์ของการวิจัยครั้งนี้ คือ เพื่อศึกษาความพึงพอใจของนักท่องเที่ยวเกี่ยวกับการใช้บริการขนส่งสาธารณะ กลุ่มตัวอย่างที่ใช้ในการวิจัย คือ นักท่องเที่ยวชาวต่างชาติที่ใช้รถสองแถวในจังหวัดภูเก็ต เครื่องมือในการวิจัยครั้งนี้ คือ แบบสอบถามจำนวน 200 ชุด การวิเคราะห์ข้อมูลด้วยสถิติเชิงพรรณนา พบว่า ผู้ใช้บริการรถสองแถวส่วนใหญ่เป็นนักท่องเที่ยวที่มาภูเก็ตเป็นครั้งแรก ซึ่งเดินทางกับเพื่อนและครอบครัว สาเหตุหลักของการใช้บริการขนส่งดังกล่าว คือ ความคุ้มค่าด้านราคา ผู้ตอบแบบสอบถามมีความพึงพอใจสูงสุดต่อคุณภาพการบริการในด้านพฤติกรรมของผู้ร่วมเดินทาง และจำนวนที่นั่ง นอกจากนี้ การวิเคราะห์องค์ประกอบได้ค้นพบ 3 ปัจจัยที่เกี่ยวข้องกับการบริการขนส่งสาธารณะ คือ ระบบการจัดการ ความสะอาดสบาย และพนักงานขับรถ อีกทั้งการวิเคราะห์การถดถอยอย่างง่าย พบว่า พนักงานขับรถ และระบบการจัดการมีความสำคัญต่อการบอกต่อการใช้บริการรถสองแถวในจังหวัดภูเก็ตอย่างมีนัยสำคัญทางสถิติ ธุรกิจที่เกี่ยวข้องสามารถประยุกต์ใช้รายงานการวิจัยในการศึกษาครั้งนี้ได้

คำสำคัญ: ความพึงพอใจของนักท่องเที่ยว ภูเก็ต การขนส่งสาธารณะ พฤติกรรมนักท่องเที่ยว

Introduction

Transportation is one important sector in the tourism system. It is involved in every step of travelling, including arrival, onsite, and departure stage. That is why it is impossible to consider tourism without considering transportation. A destination with a good public transportation system provides a positive destination image for tourists regarding its infrastructure. It is also a matter of image in regard to the cost of a destination as a tourist does not need to hire a private vehicle. In addition, effective public transport supports environmental protection. In contrast, cities with poor public transport bring higher demand for private transportation. The number of tourist arrivals to a city should be a factor in design for urban mass transportation.



Phuket is a popular destination for travelers from around the world. It is the biggest island in Thailand, located in the Andaman Sea in the southern part of the country. Statistics from the National Statistical Office in Phuket (2019) shows the number of tourist arrivals in Phuket since 2011 has been over 10 million. In addition, tourist daily expenditures have been increasing every year. The key tourist markets are China, Russia, and Europe. In 2018 – 2019, India has become an important market for Phuket tourism due to accessibility between cities in India and Phuket. In addition, more and more tourists in Phuket have been free independent travelers (FIT) (Tourism Authority of Thailand, 2019).

Phuket provides public transport to accommodate passengers including FIT tourists. Those passengers include tourists, travelers, and local residents. One of the unique local vehicles is a bus, namely, Songtaew. Tuk tuk, a Thai style vehicle, is also operated in Phuket. In addition, an airport bus from Phuket International airport to the city center is available. Recently, Phuket has launched a new public bus that is a Smart Bus which is a project from Phuket City Development (PCD). However, public transportation in Phuket is insufficient and does not offer a viable alternative (Thongphon Promsaka Na Sakolnakorn, Aree Naipinit & Patarapong Kroeksaku, 2013).

Public transportation in Phuket is not an attractive mode of travel. Public transportation in Phuket is not very popular due to many reasons (Sakolnakorn et al., 2013). One among many reasons is because of the conditions of public vehicles. It is quite old. The punctuality of public vehicle is questionable. Cleanliness is another issue. The public transport system serving residents and tourists is also of low quality, negatively impacting tourism. Traffic jams are another reason affecting people's decisions regarding public transportation.

Nevertheless, with the advance of technology and changes in travel behaviour, an investigation into public transportation usage should be conducted. A tourist is likely to travel independently. Therefore, public transportation is one of many requirements. Regarding public transportation service, travelling with reasonable, convenient, and quality vehicles is significant for passengers (Ismail, Hafezi, Nor & Ambak, 2012). Accessibility attracts tourists to visit a destination. Despite an importance of local transportation, little is known about tourist consumption of local transportation in a world class destination like Phuket. The current research investigates tourist satisfaction of public transport use in Phuket. In this present study, public transports of interest are local Songtaew and local Tuk tuk as their uniqueness of the



destination. The research results can provide benefits to tourism policy by improving strategies for tourists using public transport. The more attractive the transportation, the more of a positive image it generates for the local community.

Research objective

This research aims to seek tourist satisfaction of public transport use in Phuket. In addition, this is to understand factors influencing recommendation toward public transport usage.

Literature review

The literature suggested two key areas of research have been conducted in relation to public transportation use by tourists. The first area of literature in this regard investigates whether tourists use public transportation. Some studies have researched why tourists use public transport (e.g., Gutiérrez and Miravet, 2016; Le-Klaehn, Gerike, & Hall, 2014a). While Le-Klaehn et al., (2014a) studied visitors and non-visitors use of public transport at an urban destination, Gutiérrez and Miravet (2016) conducted their research at a beach destination. Convenience and traffic reduction were found as reasons to use public transport in the urban city. In contrast, restrictions and lack of information discourages public transport use. In addition, Le-Klaehn et al., (2014a) found that their profile of visitors distinguished users and non-users of public transport. Such visitor information includes length of stay, main purpose of trip, age group, frequency of public transport use at place of residence, and valid driving license ownership. For instance, first-time travelers used more public transport than the other cohort whereas a day visitor tended to use less public transport. A tourist in a group would use public transport while the FIT would not. Gutiérrez and Miravet (2016) further indicated that, in addition to the tourist profile, another key factor in deciding whether tourists will use public transport at their destination is whether they take their own car or not.

In addition, popularity of public transportation usage depends upon specific factors. Shaabana & Khalilb (2013) found that the public bus in Doha was not very popular due to a number of reasons. The first reason is because of the bus system itself. Reliability is another reason. Additionally, the passengers mentioned its cleanliness and affordability. Iman (2014)



focused on public transportation use in Amman, Jordan. His research supports Shaabana & Khalilb (2013) in that all users were not satisfied with the transit system. In Cambodia, Ok & Hengsadeeikul (2018) evaluated the main factors affecting the quality of bus service and customer satisfaction in bus services travelling from Phnom Penh to Poipet using the SERVQUAL's five dimensions—tangible, reliability, assurance, empathy, and responsiveness. The findings provided evidence for the conclusion that not many customers preferred to use the BTS because of its service convenience. Service quality is an important consideration in a successful service business.

The second area of the literature is the study of satisfaction toward use of public transportation. A number of studies have investigated customer satisfaction regarding using public transportation. Such previous studies found factors that influenced customer's satisfaction, namely, traveling comfort, service quality, accessibility, and additional features determined visitors' satisfaction of public transport in Munich, Germany (Le-Klähn, Hall & Gerike, 2014b, Nwachukwu, Gladys & Chikezie, 2019, Pavlína, 2015). In addition, hospitality from staff is another factor that influences visitors (Nwachukwu et al., 2019). Safety and security were also found as factors of customer satisfaction (Ismail et al., 2012).

Negative satisfaction is mostly reported in the literature. For example, Budiono (2009) revealed that Indonesian customers were not satisfied with using public transport because of infrequent service that did not fulfill the high travel demand. In addition, riding public transport can be a waste of vacation time. Tourists who use public transport spend more time in vehicles than those who do not. Furthermore, riding fees were not a good value. In addition, waiting time, cleanliness, and comfort are attributes that need to be improved (Dell'Olio, Ibeas, & Cecin, 2011, Ismail et al., 2012).

Public transport in Phuket

Several types of public transport are provided in Phuket. The first type is called a Songtaew. The Songtaew is a wooden truck that has two or three bench seats in the back of the truck. Moreover, the Songtaew has plastic sheets to keep out the rain. The Phuket style Songtaew has two colors; blue and pink, indicating different routes of travel. The second type of public vehicle is a Tuk-Tuk. The Tuk-Tuk is a traditional Thai vehicle known as an auto



rickshaw. It is a three-wheeled Thai signature vehicle. Motorcycle Taxis are the third category of vehicles found publicly in Phuket. It is a typical motorcycle.

The fourth one is an airport bus. The airport bus is a big bus that has an orange “Airport Bus” logo on it. The bus commutes between the airport and Phuket town. The latest public vehicle available in Phuket is a smart bus. The smart bus is a new big bus that was launched by Phuket City Development (PKCD). Moreover, this bus is different from other buses in Phuket because it has a refillable Smart Card onboard for “smart” payments. Other bus features include a safety control room, GPS, CCTV cameras, Wi-Fi, a USB port at each seat, and a lift for disabled passengers. The smart bus commutes between the airport to Rawai beach.

Recently, the concept of sustainability is being considered in various areas including tourism. Carpooling and a sharing economy have been recognized as parts of this concept. However, there is a lack of investigation into tourist use of public transport, especially in a world class destination like Phuket. This research is one of a limited number of studies discussing why tourists use public transport and their satisfaction of transport use. In addition, the current research proposes to examine the effect of service quality attributes on customer recommendation. Accordingly, a hypothesis is proposed: *Service quality attributes are positively related to public transport user recommendation*. In this research, public transport user loyalty refers as making recommendations to others.

Research Methodology

This investigation adopted a quantitative research design to examine reasons for and tourist satisfaction of public transport uses in Phuket. Convenience non-probability sampling was employed in this investigation. This sampling method is widely used among scholars in various research areas, including tourism. This sampling approach was appropriate for this research due to the large number of tourists visiting Phuket.

Population and Sample

The population of this research was tourists visiting Phuket. As mentioned earlier, more than 10 million tourists made a visit to Phuket. A traffic intercept method was adopted to sample international tourists who used public transport while onsite.



Instruments and data collection

A questionnaire-based survey was undertaken in this study. The questionnaire consisted of four sections. The first section asked respondents to provide their general information, for example, age and gender. The second section involved questions about travel patterns including reasons for using public transportation in Phuket. The third section was regarding satisfaction of using public transportation in Phuket. 5-point Likert scale measurements were used. Items regarding satisfaction were adopted from Budiono (2009), Dell’Olio et al. (2011), Ismail et al. (2012), Le-Klähn et al. (2014b), and Ok (2018). Finally, the last section of the questionnaire was an open-ended question for respondents to provide further information in regard to recommendations regarding Phuket public transportation. The questionnaire was prepared in English. A draft of the questionnaire was pre-tested with researchers’ colleagues to ensure that the items were simple and understandable.

A self-administered face-to-face questionnaire was utilized in the study. This was to ensure that a target number of questionnaires were obtained in the limited time available. The data was collected in August 2019. The existing literature deems a sample between 100 and 300 cases as satisfactory (DeVellis, 2012; Hinkin, 1998; Netemeyer et al., 2003). The data collection site was across tourist area with the local bus stops, including Phuket town, Patong beach, and Kata-Karon beach. After one week of distribution, 234 responses were obtained. The preliminary data analysis suggested 200 cases were usable for statistical analysis. Descriptive analysis using Microsoft excel was conducted in this study. The dataset was analysed involving three steps: 1) data cleaning, missing value, and normality assessment; 2) principal component analysis (PCA), and internal consistency analysis; and 3) scale item and instrument adjustments. Exploratory Factor Analysis (EFA) assisted with scale measurement (Churchill, 1979; DeVellis, 2012). A series of multiple regression analyses were then conducted.

Research results and discussion

Table 1 displays the profile of tourists in this study. It was found that the numbers of male and female tourists were similar. That is, 45.5% were male and 54.5% were female. Half of the respondents were 20 to 29 years old and one-fourth was 30 to 39 years old. Two third



of the respondents were single and one-third were married. More than half of the respondents obtained their Bachelor's degree or Diploma. Regarding country of origin, the top three main markets represented were Europe, China, and Russia, respectively. They were students (36%), followed by full-time employees (29.5%). The profile of this study supports the existing research. The tourists who use public rides tend to be young and educated (Barr and Prillwitz, 2012, Gutiérrez and Miravet, 2016; Le-Klaehn et al., 2014a).

Table1: Characteristic of the respondents

| Item(s) | | Frequency | Percentage |
|-----------------|-----------------------------|-----------|------------|
| Gender | Male | 91 | 45.50 |
| | Female | 109 | 54.50 |
| | Total | 200 | 100.00 |
| Age | <20 years old | 17 | 8.50 |
| | 20 – 29 years old | 102 | 51.00 |
| | 30 – 39 years old | 41 | 20.50 |
| | 40 – 49 years old | 19 | 9.50 |
| | 50 and above | 21 | 10.50 |
| | Total | 200 | 100.00 |
| Status | Single | 130 | 65.00 |
| | Married | 61 | 30.50 |
| | Separated | 4 | 2.00 |
| | Divorced | 4 | 2.00 |
| | Widowed | 1 | 0.50 |
| | Total | 200 | 100.00 |
| Education Level | Master's degree or higher | 50 | 25.00 |
| | Bachelor's degree / Diploma | 111 | 55.50 |
| | High School | 30 | 15.00 |
| | Others | 7 | 3.50 |
| | Total | 198 | 99.00 |



| Item(s) | | Frequency | Percentage |
|-------------------|----------------------|------------|---------------|
| Country of Region | China | 29 | 14.50 |
| | India | 6 | 3.00 |
| | Russia | 19 | 9.50 |
| | Europe | 71 | 35.50 |
| | US | 13 | 6.50 |
| | Oceania | 3 | 1.50 |
| | UAE | 3 | 1.50 |
| | Others | 56 | 28.00 |
| | Total | 200 | 100.00 |
| Employment Status | Student | 72 | 36.00 |
| | Employed | 32 | 16.00 |
| | Full – time employed | 59 | 29.50 |
| | Part – time employed | 8 | 4.00 |
| | Self – employed | 16 | 8.00 |
| | Unemployed | 12 | 6.00 |
| | Retired | 1 | 0.50 |
| | Total | 200 | 100.00 |

The research findings also showed patterns of travel behavior in Phuket. This research is the first to provide the frequency of using public transport at a destination. It was found that nearly half of the respondents were one-ride users. Most of the respondents were visiting Phuket for the first time, while some of them reported themselves as a revisit customer. The current finding supports Le-Klaehn et al (2014a) who found revisit visitors tend to be non-users of public transport. The possible reason for not using a public ride may be due to familiarity with a destination. Two-thirds of them travelled with either friends, partner, or spouse. The findings in this regard also support Le-Klaehn et al (2014a) who indicated that those who travelled with friends and family were likely to take a public ride.



Table 2: Travel patterns

| Travel patterns | | Frequency | Percentage |
|---|-----------------------------|-----------|------------|
| Type of tourist | First time visit | 138 | 69.00 |
| | Return visit | 62 | 31.00 |
| | Total | 200 | 100.00 |
| Travel Companion | Alone | 24 | 12.00 |
| | Friends | 67 | 33.50 |
| | Partner or Spouse | 62 | 31.00 |
| | Family or Relatives | 47 | 23.50 |
| | Total | 200 | 100.00 |
| Frequency of using public transport in Phuket | Frequently | 58 | 29.00 |
| | One time | 88 | 44.00 |
| | Two or three times per week | 53 | 26.50 |
| | Total | 200 | 100.00 |

As shown in table 3, the research findings further indicated the reasons why tourists decided to use public transport during their Phuket trip. While Gutiérrez and Miravet (2016) found that tourists use of public transport depended on whether or not they had their own car during a vacation. The current research found that budget is the key reason. Travelling by public transport can reduce their travel budget. This is because travelling by car is expensive. This is inconsistent with Le-Klaehn et al (2014a) who found that accessibility is the most important reason for using public transport. In addition, some respondents indicated that they can explore and enjoy the Phuket environment when travelling by public transportation. It should be noted that traffic conditions in Phuket, as well as their driving ability, were not key reasons for tourists to use public transportation.



Table 3: Frequency table of reasons to use public transport

| Reason(s) for using public transport | Frequency | percentage |
|--|-----------|------------|
| Travelling by public transport is saving money | 126 | 63.00 |
| Travelling by car is expensive | 103 | 51.50 |
| I think travelling by public transport is a better way to explore Phuket | 79 | 39.50 |
| I want to enjoy the surroundings on the way | 53 | 26.50 |
| I want to get in touch with local people | 44 | 22.00 |
| I was recommended by someone to use public transport in Phuket | 43 | 21.50 |
| I want to stay out of accidents | 42 | 21.00 |
| I want to reduce traffic congestion | 33 | 16.50 |
| I cannot drive | 33 | 16.50 |
| I want to get to know Phuket's transport system | 30 | 15.00 |

Table 4 shows the mean scores of tourists' satisfaction with service quality attributes. It was found that the highest level of tourist satisfaction with service quality was the attribute of other passengers' behavior, followed by the seat available on public transport. The "higher level" of satisfaction was given to the attributes of drivers, both of their service and their behavior. This strengthens the friendliness and hospitable image of local Thai people. Cleanliness of the public vehicle received a moderately high satisfaction level. The current findings are inconsistent with existing literature (e.g., Gutiérrez and Miravet, 2016; Le-Klaehn et al., 2014b) who found punctuality and reliability were the most satisfied with attributes. In contrast, the respondents were less satisfied with noise conditions on the public vehicle and the language skill of the public transport drivers. This indicates that the service quality of the Phuket public transportation system is a quiet level of concern and should be improved similar to suggestions from Shaabana & Khalib (2013). Noise level was one of the reasons reducing the popularity of public transport use. Waiting time, supported by previous literature (e.g., dell'Olio et al., 2011, Ismail et al., 2012), was another concern. This aspect is regarding an accurate timetable. Also, other useful information should be made known, for example, bus signs (e.g., Le-Klähm et al., 2014b, Nwachukwu et al., 2019, Pavlína, 2015). The drivers' English



skills were what users wanted the drivers to improve with practical sentences about directions, prices, and times.

However, overall, the level of tourist satisfaction regarding the public transportation service in Phuket was at a moderate level. This is also inconsistent with other literature where they indicated negative satisfaction with the use of public transport (dell’Olio et al., 2011, Ismail et al., 2012). Tourists indicated that they would recommend public transport to others despite the moderately positive scores. It should be noted that willingness to recommend to others is the item with the highest mean score when compared with others.

Table 4: Tourists Satisfaction with Service Attributes – Comparison of Means

| Item(s) | Mean | Standard deviation |
|---|-------------|--------------------|
| Passenger behaviour | 3.80 | 0.91 |
| Seat available | 3.68 | 1.03 |
| Driver service | 3.64 | 0.92 |
| Driver behavior (driving performance of the driver) | 3.64 | 1.00 |
| Cleanliness of vehicle | 3.60 | 0.87 |
| Ease of use | 3.52 | 1.11 |
| Service frequency | 3.47 | 0.87 |
| Accessibility of the vehicle | 3.39 | 0.96 |
| Punctuality | 3.35 | 1.05 |
| Comfortable seat on the vehicle | 3.30 | 0.90 |
| Safety on board | 3.26 | 1.15 |
| Level of crowd | 3.21 | 1.02 |
| Information | 3.14 | 1.06 |
| Waiting time for vehicle | 3.12 | 1.08 |
| Driver’s English skill | 3.09 | 1.08 |
| Noise level | 3.08 | 1.09 |
| Overall satisfaction with public transport service | 3.36 | 1.01 |
| Recommend public transport to others | 3.84 | 0.89 |

Prior to performing the PCA, the data was assessed for suitability for factor analysis. Inspection of the correlation matrix suggests a considerable number of sizable correlations (> 0.3) for all constructs (Field, 2009). Overall, the EFA results reported that all scales were within acceptable limits. The KMO test statistic was above 0.7 that was considered to be good according to Field (2009). Moreover, values for Bartlett’s tests of sphericity were significant at



the one percent level in all cases. In addition, all factor loadings were greater than 0.5. All items retained showed communality scores above 0.40. The PCA analysis of the dataset suggested three components of the service variables, which were Driver, Comfort, and Management system, as shown in Table 5.

Table 5: Factor analysis of Service Attributes

| Factor and Items | Loading | Variance Explained (%) | Reliability (α) |
|---------------------------------|---------|------------------------|--------------------------|
| Driver | | 42.42 | 0.80 |
| Driver service | 0.83 | | |
| Driver behavior | 0.80 | | |
| Passenger's good behavior | 0.74 | | |
| Driver's English skill | 0.67 | | |
| Comfort | | 13.18 | 0.82 |
| Seat availability | 0.84 | | |
| Cleanliness of vehicle | 0.83 | | |
| Comfortable seat on the vehicle | 0.76 | | |
| Management system | | 9.74 | 0.75 |
| Waiting time for vehicle | 0.80 | | |
| Punctuality | 0.78 | | |
| Ease of use | 0.67 | | |
| Safety on board | 0.52 | | |

An iterative multiple regression analysis was then conducted. Table 6 presents the regression results for public transport user loyalty. Public transport user loyalty refers to *Recommendation to others*. Results showed that the model was significant, and two predictors collectively made a significant contribution by explaining 35 % of the variance of Public transport user loyalty. *Driver* has the strongest effect on customer loyalty, followed by *Management system*. The findings showed that the tourists who used public transport in Phuket were likely to have strong intentions to recommend public transport to others when they were pleased with the capabilities of drivers and the public transportation network provided a reasonable management system. As such, the proposed hypothesis is accepted. That is, Service quality attributes are positively related to public transport user loyalty. While



this study found that the *Driver* aspect is the most significant factor of user loyalty, Le-Klähn et al. (2014b) indicated the importance of quality of service was the most important one. The possible reason for this difference deals with the context of study. While this research was conducted in Phuket where Thainess and Thai hospitality is outstanding, the Le-Klähn et al. (2014b) study focused on Munich, Germany where service quality including punctuality and reliability are outstanding aspects.

Table 6: Regression Analysis of predictors of Public transport user loyalty

| Predictors | β^* | t | Sig. |
|-------------------------|-------------|-------------|-------------|
| Management system | 0.20 | 2.78 | 0.00 |
| Comfort | 0.09 | 1.29 | 0.20 |
| Driver | 0.42 | 6.26 | 0.00 |
| F | 36.82 | | |
| Model significance | 0.00 | | |
| Adjusted R ² | 0.35 | | |

Note . β = *Standardised regression coefficient; Significant factors are in boldface.

Conclusion and Recommendations

The tourists who use public rides tend to be young and educated. In addition, most of them are from Europe and are currently a student. The majority of them are first-time travelers and travelled to Phuket with either friends or a partner. In addition, nearly half of the respondents used a public ride only one time. It was found that the key reason for using public transport in Phuket is due to push factors—that is, saving money and destination exploration. In terms of tourist satisfaction, the availability of a seat, indicating comfort, is the highest ranked score of public transport use in Phuket. Hospitality of drivers is the second highest satisfaction level. Cleanliness of transport is ranked third. In regard to public transport usage recommendation, the proposed hypothesis of *Service quality attributes are positively related to public transport user recommendation* is partially accepted. The driver and the management system significantly affect public transport user loyalty.

This research suggests practical implication for tourism policy makers. It was found that tourists in their 20s to 40s are the target market of public transport. Individuals in this age group are tech-savy. Therefore, local government should adopt technologies and applications



to facilitate such tourists. For instance, an application for bus tracking can be promoted. Better and more reliable online payment systems should be prepared.

The findings suggest the type of tourists using public transport. The service providers of transport should prepare marketing strategies to attract the first-time tourists to use more public transport. Some marketing promotions can be offered, for instance, a customer loyalty program. In addition, an inclusive travel package can be presented. In this regard, the transportation department should cooperate with tourism businesses and include public rides in travel packages.

Furthermore, the local government and public transportation sector can adopt the research findings to provide higher quality transportation. It was shown that the aspect of the driver was the most important factor affecting customer loyalty. Therefore, public transportation officials should cooperate with the private sector in this regard to prepare transport personnel to meet users' expectations. Some required skills include service mindedness and communication. Languages, such as English, are compulsory. The attributes of the management system were found to significantly contribute to customer loyalty. Public service timetables should be provided. Punctuality of arrivals and departures should be promised and maintained.

Nevertheless, some limitations to this study exist. First, the current research was conducted in Phuket only. Phuket is one of the top destinations in Thailand. However, further research should investigate the public transportation use at other destinations, especially beach resort style destinations due to generalization. Second, this study investigated the satisfaction of public transport use by international tourists. Future research could compare the level of satisfaction between domestic and international visitors. Future studies should focus on the various public transportation modes. Also, the various bus service places in Phuket should be surveyed. Although this study is specific to the *Songtaew* bus in Phuket, its results could be applicable and beneficial to public transport operators who use similar transportation system components and infrastructure conditions.



References

- Barr, S., & Prillwitz, J. (2012). Green travellers? Exploring the spatial context of sustainable mobility styles. *Applied geography*, 32(2), 798-809.
- Budiono, O. (2009). *Customer Satisfaction in Public Bus Transport: A study of travelers' perception in Indonesia*.
- Churchill, G. A. (1979). A Paradigm for developing better measures of marketing constructs. *Journal of Marketing Research*, 16(1), 64-73.
- Dell'Olio, L., Ibeas, A., & Cecin, P. (2011). The quality of service desired by public transport users. *Transport Policy*, 18(1), 217-227.
- DeVellis, R. F. (2012). *Scale development: theory and applications* (Vol. 26.). Thousand Oaks, Calif: SAGE.
- Gutiérrez, A., & Miravet, D. (2016). The determinants of tourist use of public transport at the destination. *Sustainability*, 8(9), 908.
- Field, A. P. (2009). *Discovering statistics using SPSS*. Los Angeles; London: SAGE.
- Ismail, R., Hafezi, M. H., Nor, R. M., & Ambak, K. (2012). Passengers preference and satisfaction of public transport in Malaysia. *Australian Journal of Basic and Applied Sciences*, 6(8), 410-416.
- Le-Klähn, D. T., Hall, C. M., & Gerike, R. (2014b). Analysis of visitor satisfaction with public transport in Munich. *Journal of Public Transportation*, 17(3), 5.
- Le-Klaehn, D. T., Gerike, R., & Hall, C. M. (2014a). Visitor users vs. non-users of public transport: The case of Munich, Germany. *Journal of Destination Marketing & Management*, 3(3), 152-161.
- National Statistical Phuket Office. (2019). Phuket Tourism Statistics. Retrieved [online] 18 September 2019 from <http://phuket.nso.go.th/>
- Nwachukwu, A. A., Gladys, N. I., & Chikezie, O. K. (2019). Tourists' satisfaction with public transport services in Lagos, Nigeria. *AUC Geographica*.
- Ok, S., & Hengsadeeikul, T. (2018). Customer Satisfaction on Service Quality of Bus Transport: A Survey of Passengers from Phnom Penh to Poipet in Cambodia. *Journal of Social Science Studies*, 5(2), 114-131.
- Pawlasová, P. (2015). The factors influencing satisfaction with public city transport: A structural equation modelling approach.



- Thongphon Promsaka Na Sakolnakorn¹, Aree Naipinit & Patarapong Kroeksaku (2013). Sustainable tourism development and management in the Phuket province, Thailand. *Asian Social Science*, 9(7), 75.
- Shaaban, K., & Khalil, R. F. (2013). Investigating the customer satisfaction of the bus service in Qatar. *Procedia-Social and Behavioral Sciences*, 104, 865-874.
- Tourism Authority of Thailand. (2019). About thailand. Retrieved [online] 18 September 2019 from <http://www.tourismthailand.org/>

