Holiday Travel Behavior during Songkran Festival in Thailand

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Abstract: Traveler behavior analysis is essential for planning and management of transportation systems. A type of travels which has been overlooked in many studies but quite important is holiday travel. The trip pattern of holiday-related trips is very different from that of typical-day trips. Those holiday trips significantly create congestion and accidents, especially during a long holiday season. Therefore, it is vital to understand the holiday travel behaviors for planning, managing, and satisfying holiday travel demands. This study examines holiday traveler behaviors including trip-makers' destination choices, interesting holiday trip characteristics, and their attitudes towards travelling. A questionnaire survey was developed and applied to potential travelers one month before the most important holiday season in Thailand, the Songkran festival which is the Thai traditional new year. Numerical results encourage transportation planners to advocate strategic plan to satisfy holiday travel demands. The methodology can be applied to other holiday seasons in other countries.

Keywords: Traveler behavior, Destination preference, Mode choice, Holiday travel, Domestic tourism

1. INTRODUCTION

Holiday travels affect a transportation system by temporarily changing the trip pattern. Despite their favorable effects in terms of regional and economic development, they also create many adverse effects. Holiday trips during major holiday seasons usually exceed the service capabilities of road infrastructure causing traffic congestion and parking disorders at holiday destinations. Moreover, it customarily increases the number of road accidents. It is the responsibility of transportation planners to mitigate the problem, but first of all, to understand the problem.

Holiday travel demand is more random and diverse when compared to daily commuter traffic. It is more flexible and varies with time and space (Wang *et al.*, 2015), therefore, analyzing holiday travel behavior including destination choice during a holiday season is a necessity. This study aims to provide a better understanding of holiday trip makers' behaviors during the Songkran festival in Thailand, which falls during April 13-15. It is the most popular holiday season in Thailand. According to the statistics presented by the Tourism Authority of Thailand (2013), nearly 2.0 million domestic travelers and 0.6 million foreign visitors make trips with the estimated expenditures of 4,450 and 6,675 million Baht, respectively, during this holiday season. In addition, the number of road accidents in Thailand has been increasing during this holiday season. The statistics show that the number of deaths caused by road

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accidents in Thailand during the Songkran festival in 2015 has increased by 13.04%, comparing to the prior year, and is the highest among the past four years (Barrow, 2015).

This research tackles an important, but often overlooked, problem of understanding holiday travel behaviors during a major holiday season. The paper is organized as follows. Section 2 provides a brief literature review on holiday travel behavior, factors that influence the holiday trips, normal trend, and challenges that holiday trip makers face when choosing holiday destination and travel mode. It also indicates the shortage of existing research, which leads to the contribution of this research. Section 3 describes the research methodology. The data collection procedure is explained in section 4 where the survey location map and questionnaire preparation process are described. Then, sections 5, 6, and 7 analyze holiday destination choices, holiday trip characteristics, and influences for holiday decision choices, respectively. The summary is presented in Section 8 along with important findings and recommendations for future research.

2. LITERATURE REVIEW

The difference in holiday travel behaviors between holidays and ordinary weekdays are: (a) opposite decision structure between holiday trips and weekday trips for holiday trips travel mode choice is prior to trip chain determination, (b) holiday trips strongly depend on cars than weekday trips, and (c) holiday trip makers are more sensitive to travel time than travel cost (Yang *et al.*, 2016). Even though the main focus of travel demand management is at ordinary weekdays, examining holiday travel behaviors is important.

The major topics studied in previous research related to holiday travel behaviors are: to-where and how trip makers travel during holidays. Different researchers produced various kinds of results accounting for identification of influencing factors, destination, and mode choices. Many of these studies have concluded that people mostly prefer domestic destinations in attractive coastal areas with scenic views as their holiday destinations (Davison and Ryley, 2016). The most influencing factor for the destination choice are job and family responsibilities (Böhler et al., 2006). Large families with young children are likely to travel in shorter distances by staying within their countries (LaMondia et al., 2010). People who travel to further destinations tend to travel more often than the others and use air travel for more than 60% of their trips (Böhler et al., 2006). The climate in the country or region of residence is a strong determinant of holiday destination choice. Holiday characteristics in the UK, indicate that people tend to take part in holiday travel in summer, when the temperature is high and the number of sunny hours per day are the highest (Ryley and Davison, 2008). Residents from tropical countries such as Thailand tend to behave in the same manner, and show a higher probability in domestic travelling than travelling abroad. This means that the climate in the country or region of residence is a strong determinant of holiday destination choice. In addition, staging of events or festivals positively affects destination choice (Huybers and Bennett, 2003).

Holiday transportation mode choices are influenced by locational, socio demographic, psychological, and cultural factors. Holiday trips strongly depend on car than public transportation. Car dominates because of: (a) functional factors such as speed, safety, and convenience, (b) nonfunctional factors such as driving enjoyment, (c) affective factors such as excitement and enjoyment in scenery, and (d) symbolic factors such as social identity (Loo *et al.*, 2015).

If more elders and children are in the group of travel, there is a high probability that they will use car as the transportation mode. The number of vehicles per household also has a

significant effect on travelling (Li *et al.*, 2016). According to Li *et al.* (2016), if a particular household has one car, the probability of using car increased by 73.2% compared to travelers who do not own any car but used to drive on holidays. When a family has more than one car this increment further increase by 5.3%. The research also showed that two main variables to cause significant effect on the travel mode choice are household income and driver license status. Less important variables include socio-cultural aspects, life stage, and financial considerations (Khademi and Timmermans, 2014).

In 2015, more than 2.4 million foreign travelers visited Thailand during the Songkran festival (Department of Tourism, 2015). This fact confirms the importance of this festival. However, to the best of our knowledge, there is no relevant study dedicated traveler behaviors during the Songkran festival in Thailand. This indicates the shortage of existing research. This paper examines traveler behaviors of locals and foreigners on travel mode choice, destination choice, and traveler decision choice aspects.

3. METHODOLOGY

Data collection was done in March 2016 by questionnaire survey of randomly selected Thai and foreigners. This period was ideal as it was one month before the Songkran festival, the Thai traditional new year. It was when majority of trip makers already planned where to travel and which mode they will use at their destinations. The survey was done by distributing a questionnaire while interviewing each respondent face-to-face. Bangkok, the capital of Thailand, is selected as the survey location. Many people who have their hometowns in the other parts of Thailand move to stay and work in Bangkok. In addition, Bangkok is the most populated city in the country. Since the Songkran festival is the traditional Thai New Year, it is when a lot of Thai citizens travel to celebrate with family. Most holiday trips originate from the Bangkok region and distribute to the other parts of Thailand. Moreover, the largest international airport in Thailand, the Suvarnabhumi airport, is located in the vicinity of the Bangkok region. Most tourists therefore visit Bangkok first and then travel to their holiday destinations. It is clear that Bangkok is the most important origin of the Songkran trips.

Ten survey locations within the Bangkok region were selected, which are fairly scattered to represent the entire region of Bangkok. They were selected based on consideration of major transportation hubs or busiest places where many people gather to use different types of transportation modes to make their trips. The locations consist of two airports, two railway stations, three major bus stations, one major van station, and two large shopping malls. The survey locations account for locals and foreigners who use airplanes, trains, buses, and vans to travel. Non-mandatory trips during holidays also include shopping trips, therefore, two major shopping malls which are located in the center of Bangkok are also included. This covers private car users, who stops at these places for their holiday shopping.

Thailand population is approximately 60 million. Referring to the Yamane equation under 95% confidence interval (Israel, 1992), the minimum number of samples is 390. In this study, 400 samples of Thai and non-Thai are surveyed, which is statistically sufficient to represent the population but of course the more the better. The survey form consists of three parts: (a) general demographic and socioeconomic information, (b) travel information, and (c) questions related to attitudes towards travelling. The survey data was statistically analyzed by chi-square tests, averages, and percentages using the SPSS software (Ratanavaraha and Jomnonkwao, 2013). The results were then presented in charts and tables to summarize the behaviors of travelers during the Songkran festival and to figure out the most and the least influencing factors towards travel destinations and mode choices during this holiday season.

The selected 10 key locations are presented in Figure 1 to clearly visualize the scatter distribution within Bangkok region in Thailand. The specific survey locations of each transportation forms are categorized as follows.

- (A) Airport: Don Mueang International Airport, Suvarnabhumi Airport
- (B) Bus Station: Mo chit, Ekkamai and Southern Bus Terminal
- (C) Van Station: Victory Monument
- (D) Shopping mall: Fashion Island, Central Plaza Rama II
- (E) Railway Station: Hua Lamphong Railway Station, Bang Sue Railway Station

These sub survey locations were selected considering following reasons. Selecting both airports in Bangkok was due to: (a) Suvarnabhumi airport is the largest international airport in Thailand, and (b) Don Mueang airport covers most of domestic trips. Among every bus station which provide access within Bangkok region, three main bus stations were selected due to: (a) Mo chit is the hub to the North and North-Eastern buses, (b) Ekkamai provides access to buses in the Eastern direction, and (c) Southern bus terminal connects to Southern Bangkok. Then Victory Monument, Fashion Island, and Central plaza Rama II are the locations of major shopping malls and van stations. Usually, most of the car users will stop by to do their holiday shopping in the above-mentioned malls. Therefore, these locations cover van and car users. As the final category, two main railway stations were selected, Hua Lamphong Railway Station and Bang Sue Railway Station.

The selection of 400 respondents were random and approximately covered all age groups in both genders. Questionnaires were distributed to Thai and non-Thai respondents, prioritizing Thai respondents. As mentioned above, according to previous statistics, there is a high percentage of local travelers make trips during the Songkran holiday compared to non-Thai travelers (Tourism Authority of Thailand, 2013). Therefore, this study focused to interview approximately 80% Thai and 20% non-Thai travelers, to obtain a set of unbiased holiday travel data. Questionnaire was build up to obtain an individual's socio demographic data, individual holiday trip preferences, and their attitudes towards making the holiday trips. Data obtained from these three parts aided to fulfil the research objective

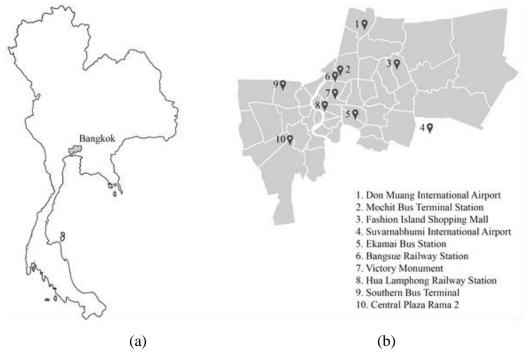


Figure 1. Bangkok city, Thailand; 1b. Sub-Survey locations within Bangkok

4. SAMPLE DESCRIPTION OF RESPONDENTS

Final dataset from questionnaire survey consists of 400 respondents. The socio demographic characteristics of each individual and household are summarized in Table 1.

Table 1. Respondents' Socio-Demographic Characteristics

| The household | The individual | | | | |
|-----------------------------------|----------------|----------------------------------|------|--|--|
| Criteria | % | criteria | % | | |
| Household Size | | Gender | | | |
| 1 Person | 4.8 | Male | 44.5 | | |
| 2 Persons | 11.2 | Female | 55.5 | | |
| 3 Persons | 20.5 | | | | |
| 4 Persons | 33.8 | Age | | | |
| 5 Persons | 17.7 | ≤ 18 years | 4.7 | | |
| ≥ 6 Persons | 12.0 | 18-23 years | 20.0 | | |
| | | 24-34 years | 38.8 | | |
| Car Ownership | | 35-49 years | 22.0 | | |
| None | 37.8 | 50-60 years | 9.0 | | |
| 1 car | 36.3 | \geq 60 years | 5.5 | | |
| ≥ 2 cars | 26.1 | | | | |
| | | Marital Status | | | |
| Hometown Base | | Non-Married | 68.3 | | |
| Thailand | 82.2 | Married | 31.7 | | |
| Abroad | 17.8 | | | | |
| | | Occupation | | | |
| Household Income* | | Government Employee | 19.3 | | |
| ≤ 20,000 THB (572 USD) | 4.8 | Company Employee | 26.0 | | |
| 20,001-40,000 THB (572-1143 USD) | 7.2 | Business Owner | 10.0 | | |
| 40,001-60,000 THB (1143-1714 USD) | 12.5 | Others | 12.4 | | |
| 60,001-80,000 THB (1714-2286 USD) | 21.5 | Unemployed | 4.3 | | |
| 80,001-100,000THB (2286-2858 USD) | 25.3 | Student | 28.0 | | |
| ≥ 100,000 THB (2858 USD) | 28.7 | | | | |
| | | <u>Individual Income*</u> | | | |
| | | ≤ 20,000 THB (572 USD) | 43.3 | | |
| | | 20,000-40,000THB (572-1143 USD) | 32.0 | | |
| | | 40,000-60,000THB (1143-1714 USD) | 12.0 | | |
| | | ≥ 60,000 THB (1714 USD) | 12.7 | | |

The sample consists of 44.5% males and 55.5% females, mostly in the young and middle age, age range. That is more than 80% of the respondents are in between age of 18 to 49. Among 400 respondents, 272 respondents plan to make holiday trips during Songkran festival, which is 68% of the entire sample. Possible reasons for the remaining 32% for deciding not to travel during the Songkran period could be: (a) 43% of the respondents have an income below 20,000 Thai baht (572 USD), and (b) 45% of respondents have income but work for companies or government and 28% of respondents are students who do not have income. Thus,

they might not able to travel due to not having breaks or money. In terms of travel mode, most respondents (62%) personally own cars. Regarding the household characteristics of the respondents, the most common household size was four per household. Additionally, more than 75% have household income of minimum 60,000 Thai baht (1,716 USD). Besides, marital status of respondents was questioned, as it is also an affecting factor for the holiday travel decision (Böhler *et al.*, 2006; LaMondia *et al.*, 2010). The sample consists of approximately 68% non-married respondents.

Along with these general information, the important preferences of trip makers captured in this survey includes, destination and mode choices, trip characteristics preferences, and influences on holiday choices.

5. DESTINATION CHOICE

Among 400 respondents, 272 (68%) have decided to take a holiday trip during the Songkran festival. Out of these 272 holiday trip makers, 62% confirmed that their vacation destination is within Thailand. The influencing factors for them to choose domestic destinations over international destinations are cost and distance. This observation supports a prior research statement (Ryley and Davison, 2008), that is, residents from hot climate regions like Thailand tend to travel domestic rather than abroad. As highlighted in the Figure 2, according to the respondents, 10 most popular domestic holiday destinations in Thailand were Chaingmai, Chonburi, Phuket, Krabi, Rayong, Surathani, Mae Hong Son, Prachuap Kirikhan, Chiang Rai, and Loei. If the above 10 holiday destinations were categorized as one, among 272 (62%) trip makers, slightly more than half, which is 32% are attracted to the most popular holiday destination category, whereas the remaining 30% are attracted to the rest of the destinations in Thailand. Of all the respondents, 34% stated that they had holidays in Thailand at least twice within the last 12 months. When considering the most attracted three holiday destinations within Thailand, the highest percentage of traveler attraction was for Chiang Mai followed by Chonburi and Phuket with approximate percentages of responses were 22%, 20%, and 14% respectively. This is probably because: (a) Chiang Mai is one of the most traditionally attractive destinations, in the northern part of the Thailand. That has been the most famous destination for the Songkran festival and well known among both Thai and foreigners, and (b) Phuket and Chonburi are famous coastal destinations located in the southern and eastern regions of Thailand, respectively. The survey results demonstrated that a high proportion of respondents enjoy leisure travel in traditionally attracted, rural, and beautiful coastal areas within the country.

6. HOLIDAY CHARACTERISTICS

Figure 3a-e illustrates the summary of the survey on holiday characteristics under 5 categories by destination such as: (a) departure time, (b) mode at the destination, (c) length of the stay, (d) accommodation, and (e) travelling cost. Figure 3a depicts the significant difference in the holiday characteristics according to the departure time. According to the results, there is a higher tendency to travel during early mornings in the time range between 4:00-10:00, which accounts for 43.4 % out of 272 (68% of total) travelers. This might be due to the comforting weather and road traffic condition is lesser during that time.

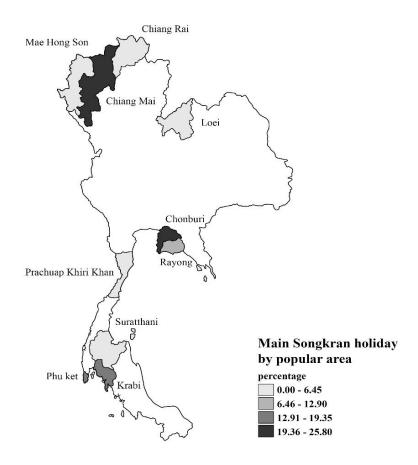


Figure 2. Destination choice during Songkran holiday in Thailand

The next Figure 3b depicts the mode choices at the destination. The most popular mode of transportation is car with 49.3% out of 272 (68% of total) respondents, followed by motorbike with 26.1%. Higher percentage for car might be due to the following reason, 62% of total respondents owns 1 or more than one cars. The eight types of public transportation modes provided in the questionnaire grouped into three: (a) private vehicles (Car) has the highest number of choices with 36.0% out of 272 (68% of total) travelers, (b) large transit vehicles, "Class A" category, which includes the airplane and train with 34.2%, and (c) small transit vehicles, "Class B" category including bus, van, and motorbike with 29.8%.

Next category under holiday characteristics is length of stay at the main destination as shown in Figure 3c. The most common length of stay is two to three nights. The reason for this behavior might be that 45% of total respondents are employees, and usually, both government and private companies have vacation less than five days during the Songkran period. Moreover, there were 28% students who answered the questionnaire, and usually this period is not a long vacation for schools or universities.

As fourth category, the most preferable accommodation type of each individual was analyzed. As Figure 3d, the most preferred accommodation type is hotel, and, as the second private house is preferred. This might be due to the convenience, comfort, privacy, and safety. The preference of private house option is understandable as usually people who work and stay in the capital city or industrial estate areas travel back to their hometowns during this holiday season to visit family and relatives. Hostel cottage and bungalow have approximately similar percentage which is considerably low in proportion. The reason for traveler's least favor towards these maybe they located away from city, and considered to be less in safety and comfort comparing to hotels.

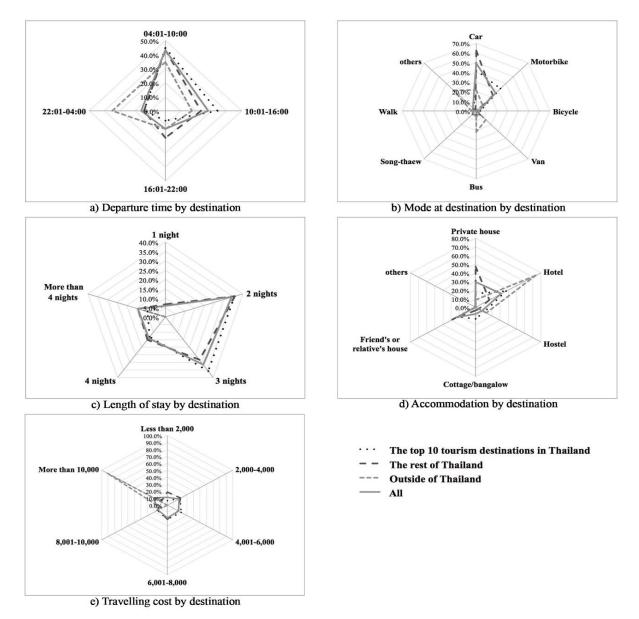


Figure 3a. Departure time by destination, 3b. Mode at destination by destination, 3c. Length of stay by destination, 3d. Accommodation by destination, and 3e. Travelling cost by destination

Figure 3e depicts the travelling cost or each respondent's willingness to pay on travelling during the Songkran season. Interestingly, travelers (approximately 20% out of 272 travelers) are willing to pay in excess of ten thousand baht for a holiday. This suggests that considerably higher demand can be expected for accommodation and travelling modes which are safe, convenient, and comfortable even though they are medium-high or high in cost perspective. In fact, the cost of accommodation is usually high during holidays. Moreover, Thai people exchange presents with their relatives and friends during the Songkran holiday, therefore this result is understandable.

Additionally, the results of this survey revealed that, a high proportion (approximately 62%) of travelers prefer to experience a travel time of less than five hours, yet 26.5% of travelers prefer to travel five to ten hours. The highest proportion proves that the travelers

give prominence to travel within a lesser time as possible to their respective destinations. This result is very conclusive in comparison to other factors such as travel mode, travel time, and travel cost which yielded less comprehensive results.

7. INFLUENCES ON HOLIDAY CHOICES

In the third part of the questionnaire, respondents were asked to outline the attitudes and influences on holiday choices under 9 questions which cover their motivation on destination choices during the Songkran holidays. Table 2 represents percentages of each response under three categories: (a) the first category is the 10 most famous holiday destinations in Thailand (TH) as mentioned in the above sections, (b) the second is the rest of destinations in Thailand, and (c) the destinations which are outside Thailand.

Table 2. Main Reasons for Holiday Choices during Songkran by Destination Category

| | | | Classified by destination category | | | | | | |
|-------------------------------------|-----|--------|-----------------------------------------------|--------|-------------------|--------|------------|--------|--|
| | All | | The top 10 tourism destination in TH | | The rest of TH | | Outside TH | | |
| Visiting family, friends, etc. | 136 | (50%) | 39 | (30%) | 94 | (79%) | 3 | (13%) | |
| Activities available at destination | 34 | (13%) | 19 | (15%) | 9 | (8%) | 6 | (26%) | |
| Beauty of scenery | 27 | (10%) | 24 | (19%) | 3 | (3%) | 0 | (0%) | |
| Relaxing | 22 | (8%) | 16 | (12%) | 5 | (4%) | 1 | (4%) | |
| Beach and seaside | 20 | (7%) | 10 | (8%) | 3 | (3%) | 7 | (30%) | |
| Climate | 17 | (6%) | 12 | (9%) | 1 | (1%) | 4 | (17%) | |
| Accessibility | 10 | (4%) | 5 | (4%) | 3 | (3%) | 2 | (9%) | |
| Return to somewhere enjoyable | 4 | (2%) | 4 | (3%) | 0 | (0%) | 0 | (0%) | |
| Visiting new destination | 2 | (0%) | 0 | (0%) | 1 | (1%) | 1 | (1%) | |
| Total | 272 | (100%) | 129 | (100%) | 119 | (100%) | 24 | (100%) | |

The results conclude that the main reason people make trips during Songkran holidays is to visit their family and friends, as 50% of the total responses favored this reason. Among 136 respondents who make holiday trips to visit family, 94 respondents were in rest of the Thailand destination category. This might be the Thai working crowd who travel to their hometowns rather than tourist attracted destinations.

On the other hand, when considering the top ten tourist-attracted destinations, the main reasons of choosing those destinations apart from visiting families are: (a) the good scenic view, (b) activities available at destination, and (c) opportunity to relax. April is the hottest month in Thailand. Therefore, this response is understandable. According to the results, accessibility, preference of destination that is enjoyable or exploring new destination does not seem to influence respondents' choices on holiday destinations. This result slightly proves previous research statement that trip makers choose the beach side as it offers them a nice place to relax in a natural environment.

The last section of the questionnaire consisted 15 questions regarding individual attitude towards travel time and cost, climate at destination, trip planning, and travel preferences. Responses are as described. According to the results summary shown in table 3 below, approximately, 43% of total travelers wish to travel as fast as possible to their destination.

Question 01: When going on holiday, I try to use faster mode of transport.

Question 02: I like to use public transport when I am on holiday

Question 03 Travelling by car is more reliable

Question 04: "Low cost" airlines have influence me to travel long distance

Question 05: Using public transport is the safest travel choice

Question 06: I try to avoid congestion by using train, airplane and boat

Question 07: Using a car is more satisfying and enjoyable

Question 08: Taking holidays and short breaks is important to me

Question 09: I prefer to travel to new destinations rather than returning to locations I have been before

Question 10: I am willing to pay more for higher quality holidays

Question 11: I travel abroad because I have friends and family living there.

Question 12: I can find better value holiday abroad

Question 13: The weather is the only thing that discourage me from holidaying in Songkran

Question 14: The current economic situation has altered my holiday choices

Question 15: I prefer to stay in basic accommodation so I can spend more on other holiday activities

Table 3. Attitude towards using travel and mode of transportation during Songkran

| | | rongly | Disagree | | N | Neutral | | Agree | | Strongly agree | |
|--------------|-----|---------|----------|---------|-----|---------|-----|---------|------|----------------|--|
| | dis | sagree | | | | | | | | | |
| Question 01: | 17 | (4.3%) | 23 | (5.8%) | 75 | (18.8%) | 114 | (28.5%) | 171 | (42.8%) | |
| Question 02: | 97 | (24.3%) | 60 | (15%) | 102 | (25.5%) | 85 | (21.3%) | 56 | (14%) | |
| Question 03 | 9 | (2.3%) | 33 | (8.3%) | 85 | (21.3%) | 147 | (36.8%) | 126 | (31.5%) | |
| Question 04: | 21 | (5.3%) | 33 | (8.3%) | 64 | (16%) | 95 | (23.8%) | 187 | (46.8%) | |
| Question 05: | 71 | (17.8%) | 85 | (21.3%) | 136 | (34%) | 80 | (20%) | 2834 | (7%) | |
| Question 06: | 34 | (8.5%) | 54 | (13.5%) | 116 | (29%) | 99 | (24.8%) | 97 | (24.3%) | |
| Question 07: | 10 | (2.5%) | 22 | (5.5%) | 109 | (27.3%) | 123 | (30.8%) | 136 | (34%) | |
| Question 08: | 32 | (8%) | 46 | (11.5%) | 84 | (21%) | 98 | (24.5%) | 140 | (35%) | |
| Question 09: | 23 | (5.8%) | 50 | (12.5%) | 110 | (27.5%) | 99 | (24.8%) | 118 | (29.5%) | |
| Question 10: | 39 | (9.8%) | 58 | (14%) | 107 | (26.8%) | 109 | (27.3%) | 89 | (22.3%) | |
| Question 11: | 122 | (30.5%) | 110 | (27.5%) | 92 | (23%) | 43 | (10.8%) | 33 | (8.3%) | |
| Question 12: | 95 | (23.8) | 88 | (22%) | 117 | (29.3%) | 66 | (16.5%) | 34 | (8.5%) | |
| Question 13: | 57 | (14.2%) | 77 | (19.3%) | 124 | (31%) | 81 | (20.3%) | 61 | (15.3%) | |
| Question 14: | 22 | (5.5%) | 49 | (12.3%) | 102 | (25.5%) | 134 | (33.5%) | 93 | (23.3%) | |
| Question 15: | 20 | (5%) | 45 | (11.3%) | 97 | (24.3%) | 114 | (28.5%) | 124 | (31%) | |

Note: Responses of each question is considered individually when calculating percentages, i.e. each row percentages sums up to 100%.

The responses to the questions aimed the public transportation mode is as follows, most of the respondents showed an opposite or neutral response for the fact that they want to use public transportation during holidays. Respondents seem to be influenced to use airplane mode if the airline costs are considerably low. Furthermore, most of respondents were neutral on following: (a) public transportation mode is considered safe for traveling, and (b) train, airplane or boat will help travelers to avoid congestion. The responses regarding car usage strongly agreed to the fact that travelling by car is more reliable, more satisfying, and enjoyable. This highlights the importance of reducing the psychological benefits of car, and increase functional and nonfunctional benefits of public transportation.

In addition, most respondents stated that taking short holidays or breaks from their daily routine is important to them. Even though exploring new destinations is not a main reason when choosing holiday destination, they seem to agree to the fact that they would like to travel to a place where they have never travelled before rather than visiting to the same place repeatedly.

When considering individual attitudes towards travelling cost, respondents agreed that

they are willing to pay more for higher quality holidays. They prefer to choose basic accommodation type so that they can spend more on their holiday activities. In addition, they believe that their current economic status altered their holiday choices.

8. CONCLUSIONS

There was a very limited research towards holiday travel analysis. To the best of our knowledge, there is none for Thailand that similar to this study. The Thai Traditional New Year, Songkran, is the most popular holiday season in Thailand, which falls during April 13 to 15. This study provides insight information for decision makers to understand the behaviors of holiday trip makers. The research was carried out in 2016 by identifying individual attitude towards travelling during the Songkran festival and analyzing factors that influence holiday characteristics and destination choices by statistically analyzing empirical survey data. The survey was done by distributing questionnaires among 400 Thai and non-Thai respondents. The analysis consists of three parts: destination choices, holiday characteristics, and influences on holiday choices. The interview survey was done at ten key locations where potential travelers can be found.

Data were analyzed by the SPSS program. The results indicate that most people tend to choose domestic destinations during the Songkran festival. Among the domestic destinations, Chiang Mai followed by Chonburi and Phuket are the top three destinations which are quite consistent with our local knowledge. Holiday characteristics are categorized by destination to five categories: departure time, mode at the destination, length of stay, accommodation, and travel cost. Mode choices were categorized into three classes: (1) private, (2) large transit, and (3) small transit vehicles. Most travelers prefer the morning departure time and the most favorite length of stay is two to three nights. They tend to choose a hotel followed by their private house as their accommodation at their destination. As expected, the holiday trip makers prefer a short travel time. Most people prefer to travel within the range of five hours, an important line to determine their holiday destinations. During the Songkran festival, travelers are willing to spend more than 10,000 baht. The major purpose of travel during this holiday season is to visit their families, but prefer to stay in a hotel, which is consistent with our local knowledge.

Last but not least, the readers might apply the relatively simple, but quite practical, method used in this study to understand the holiday traveler behaviors which is an important transportation issue in many countries.

REFERENCES

- Böhler, S., Grischkat, S., Haustein, S., Hunecke, M. (2006). Encouraging environmentally sustainable holiday travel. *Transportation Research Part A: Policy and Practice*, 40(8), 652-670
- Davison, L., Ryley, T. (2016). An examination of the role of domestic destinations in satisfying holiday demands. *Journal of Transport Geography*, *51*, 77-84.
- Department of Tourism (DOT) (2015) Visitor Statistics http://newdot2.samartmultimedia.com/home/details/11/221/24246. The Department of Tourism Thailand. Accessed July 23, 2016
- Huybers, T., Bennett, J. (2003). Environmental management and the competitiveness of nature-based tourism destinations. *Environmental and Resource Economics*, 24(3),

- 213-233.
- IBM Analytics. Predictive Analytics. International Business Machines Corporation. http://www.ibm.com/analytics/us/en/technology/predictive-analytics/#ibm-spss-stats-m odeler-trials. Accessed March 11, 2016.
- IBM. IBM SPSS Statistics Trial Software. International Business Machines Corporation. https://www-01.ibm.com/marketing/iwm/dre/signup?source=SWG-STATSDESKTOP_TRIAL&S_PKG=ov5354&S_TACT=000000OA&S_OFF_CD=10000400&lang=en_US. Accessed July 21, 2016.
- IBM Support. Downloading IBM SPSS Statistics 23. International Business Machines Corporation. http://www-01.ibm.com/support/docview.wss?uid=swg24038592. Accessed March 11, 2016.
- Israel, G.D. (1992). *Determining Sample Size*. University of Florida Cooperative Extension Service, Institute of Food and Agriculture Sciences, EDIS.
- Khademi, E., Timmermans, H. (2014). The long-term effectiveness of a reward scheme in changing daily travel choices. *Procedia-Social and Behavioral Sciences*, 111, 380-389.
- LaMondia, J., Snell, T., Bhat, C. (2010). Traveler behavior and values analysis in the context of vacation destination and travel mode choices: European Union case study. Transportation Research Record: *Journal of the Transportation Research Board*, (2156), 140-149.
- Loo, L.Y., Corcoran, J., Mateo-Babiano, D., Zahnow, R. (2015). Transport mode choice in South East Asia: Investigating the relationship between transport users' perception and travel behaviour in Johor Bahru, Malaysia. *Journal of transport geography*, 46, 99-111.
- Li, J., Weng, J., Shao, C., Guo, H. (2016). Cluster-Based Logistic Regression Model for Holiday Travel Mode Choice. *Procedia Engineering*, 137, 729-737.
- Ratanavaraha, V., Jomnonkwao, S. (2013). Community participation and behavioral changes of helmet use in Thailand. *Transport policy*, 25, 111-118.
- Richard Barrow in Thailand (2015) Full Road Accident Statistics for Songkran. Richard Barrow.
 - http://www.richardbarrow.com/2015/04/full-road-accident-statistics-for-songkran-2015 /. Accessed July 23, 2016.
- Ryley, T., Davison, L. (2008). UK air travel preferences: Evidence from an East Midlands household survey. *Journal of Air Transport Management*, 14(1), 43-46.
- Tourism Authority of Thailand (TAT) International Public Relations Division. http://www.tatnews.org/tat-projects-2-7-million-domestic-and-foreign-visitors-over-son gkran-holiday/. Accessed July 23, 2016.
- Wang, B. Shao, C., Li, J., Weng, J., Ji, X. (2015). Transport policy. Holiday travel behavior analysis and empirical study under integrated multimodal travel information service, 39,21-36.
- Yang, L., Shen, Q., Li, Z., (2016). Comparing travel mode and trip chain choices between holidays and weekdays. *Transportation Research Part A: Policy and Practice*, 91, 273-285.