Characteristics of Weekend Activities in Greater Jakarta

Leksmono Suryo Putranto
Civil Engineering Department
Tarumanagara University
Jakarta, Indonesia
leksmonop@ft.untar.ac.id

Josia Marxalim
Civil Engineering Department
Tarumanagara University
Jakarta, Indonesia
josia.marxalim97@gmail.com

***Abstract*—After fully occupied with working and other potentially stressful activities during the weekdays, people need to release the burden in themselves. Therefore, hypothetically the type of activities, time to conduct the activities, duration of the activities and the mode of vehicle used to reach the place of activities were different from the one in the weekdays. Whilst weekdays activities have been studied widely, weekend activities in Indonesia were rarely studied. Therefore, this current study was intended to reveal the characteristic of weekend activities and its implication to transport parameters such as mode choice, departure time, duration of activities, etc.**

Keywords: weekend, activities, Greater Jakarta

I. INTRODUCTION

According to Habib [1] in 2010, people might conduct various activities during weekend, e.g.: (1) basic needs, such as take a nap, dealing with laundry, dress up, tidying up the house, having lunch, having dinner and breakfast, (2) working/ studying including telework, voluntary work, training, etc., (3) household duties such as cleaning, child-care, animal-care, etc., (4) deliver/ pick-up passengers, meals, snacks, video rental, sending mail, etc., (5) shopping activities such as buying groceries, personal needs, etc., (6) service activities such as health-care/ hospital, personal care, banking, religious activities, vehicle-care, etc., (7) recreational and leisure activities, (8) social activities including visiting/ treating guests in a club, social event planning, lengthy telephone call, etc., and (9) other activities.

According to Zhong and Hunt in 2010 [2], most of the weekend activities, were not related to pursuing education and working which were only 5% of all activities (more than 30% for shopping, social and leisure activities). According to Bhat and Gossen in 2004 [3], a household with more children member and owning more bicycles tend to conduct out of home and leisure activities.

According to McMinn & Simon in 2012 [4], physical activities for children and teenager are correlated with a lot of health benefits, including obesity avoidance, density improvement of bone mineral, decreasing risk factors of metabolic and cardiovascular diseases and improve mental health. This was confirmed by Cho & Park in 2018 [5] who found that physical activities were related to long terms health benefit such as a reduction in heart and respiratory disease and other cause of death. According to Kudlacek et al in 2016 [6], teenagers should be encouraged to counterbalance their school activity burden with physical activities at the weekend.

According to Noonan et al in 2017 [7], family involvement was an important component to effectively encourage physical activities for children. The likelihood to involve in weekend sports activities was strongly affected by parental encouragement, e.g. through verbal encouragement and/ or supports (such as paying for sports club membership, providing transportation to and from sports venues, providing outdoor backyard, which was suitable for sports activities, etc).

According to Bhat and Gossen in 2004 [3], weekend leisure activities consist of in-home activities (generally do not involve any trip, especially due the availability of online shopping and entertainment; usually conducted in the evening), out of home activities (generally in the afternoon) and pure recreational episode (jogging, cycling and joy driving mainly in the morning). According to Yai et al in 1995 [8], total daily vehicular trips at the weekend was far beyond total daily vehicular trips on weekdays.

According to Sonnentag & Fritz in 2015 [9] found that decreasing negative affect on Monday morning showed the existence of stress realizing mechanism. Therefore, the benefit of weekend activities to support physical and mental recovery was proven. According to Krajewski et al in 2011 [10], weekend physical activities were able to decrease body tension through muscle relaxation and the decrease of stress hormone such as cortisol. According to Feuerhahn et al [11] in 2014, physical activities might improve mood by temporarily releasing someone's job stress. According to Sonnentag & Fritz in 2007 [12], the choice of leisure activities may vary, however, their basic psychological experience was to recover from work and stress.

Law No. 13 the Year 2003 about Manpower [13] on Article 79 about working time, an employer has to give his/ her employee rest time and leave as follow:

- Rest/ break time at least half an hour every four continuous hours.
- Rest/ break day one or two days a week.
- Working hours are 40 hours a week, i.e. 6-7 hours per day for 6 working days a week and 8 hours per day for 5 working days a week.
- 12 days of annual leave after working for 12 continuous months.
- 2 months sabbatical leave after working for 6 continuous years, each a month (including annual leave) in year 7 and year 8.

This present paper will discuss the characteristic of weekend activities and its implication to transport parameters such as mode choice, departure time, duration of activities, etc.

II. Ease of Use

There were 155 respondents consist of 60 respondents from a direct survey and 95 respondents from the online survey. They were from Greater Jakarta. The questionnaires consisted of two main parts, i.e. the general data and the main data.

The general data consist of questions regarding name, address, age, gender, marital status, religion, education attainment, job, monthly expenses, height, weight, the use of glasses, illness suffered and structure of the household. The main data consist of questions regarding:

- Choice of weekend activities:
  - Recreation (watch a movie, visit a museum, visit a historical place, mountain trip, beach trip, others)
  - Sport (visit a gym, visit a sports club, play golf, conduct extreme sport, others)
  - Religious (worship, religious study, others)
  - Social (visit an orphanage, visit an elderly nursing home, provide free medical service, involved in the village live in, others)
  - Education (campus trip, school trip, course trip, others)
  - Work (office trip, meet a client, attend a seminar, manage legal document, groceries shopping)
  - Home (sleep, read a book, play a game, browsing the internet/ chat, watch TV/video, make a phone call, child-care, housekeeping, vehicle-care, others)
- Consideration when conducting weekend activities (trip duration, mode choice, activity duration, activity partner, activity time, congestion, work/ school assignment, others).
- Involvement in a community/ club (automotive, sport, etc).
- Location of weekend activity (in town, out of town).
- Owned transportation mode. (car, motorcycle, bicycle, others).
- Transportation mode use:
  - Public transport (motorcycle taxi, taxi, bus, paratransit, train).
  - Private transport (walk, bicycle, motorcycle, car, others) and who drive the vehicle (the respondent, driver, the family of the respondent).
- Frequency of private transport use in the weekend.
- Average trip length in km and minutes.
- Time of weekend activity (morning, noon, afternoon, evening) both actual and expected time.
- Duration of activity? When was last time he/ she conduct the activity?
- Activity partner (individual, friend, family).
- Whether you have an authority to decide the weekend activity.
- How positive are weekend activities affecting your mood on Monday morning? Is your mood better compared to your mood on Friday afternoon before the weekend.
- Sleep time during the weekend. Was it quality sleep?
- Was your weekend activities affect positively to your health?

The respondents should rate the items in the questionnaire from 1 to 4. There were two possible meaning of the rates, either to rate the degree of agreement from strongly disagree (1), disagree (2), agree (3) and strongly agree (4) or to rate the frequency from almost never-less than once a month (1), rarely-once a month (2), frequently-2 to 3 times a month and very frequent-once a week (4). The main analysis was a series of mean difference t-test between the mean of each variable and 2.5 (the departure from disagree to agree or from rarely to frequently).

III. Profile of the Respondents

105 of the respondents were male and 50 of the respondents were female. Most of the respondents (133 people) were between 17 and 25 years old. Therefore, most of them (148 people) were single and most of them (88 people) was spend less than Rp.4,000,000.- monthly. About half of the respondents (78 people) were high school graduates. Significant number of the respondents were university graduates (72 people). Most of their religions (87 people) were Christian or Catholic. More than half of them (82) did not wear glasses and may, therefore, support their physical weekend activities.

IV. Results

In recreation activities, the mean values of visiting a museum, visit a historical place, mountain trip, beach trip and the mean of recreation activities were 1.20, 1.16, 1.35, 1.70 and 1.59 respectively (all with $\alpha<0.001$). These imply that in recreation activities, most of the activities were rarely conducted by the respondents on the weekend. The only exception was to watch a movie (2.55), but it was only marginally above 2.5.

In sports activities, the mean values of visit a gym, visit a sports club, play golf, conduct extreme sport, and the mean of sports activities were 2.11, 2.10, 1.14, 1.23 and 1.64 respectively (all with $\alpha<0.001$). These imply that in sport activities, all of activities were rarely conducted by the respondents on weekend.

In religious activities, the mean value of the worship was 3.32 ($\alpha<0.001$), the religious study was 1.89 ($\alpha<0.001$) and mean for both activities were 2.61 ($\alpha=0.038$). These imply that in religious activities, the respondents tend to conduct worship and both activities frequently on weekend, but tend to rarely conduct religious studies.

In social activities, the mean value of the visit an orphanage, visit an elderly nursing home, provide free medical service, involved in the village live in, and the mean of social activities were 1.26. 1.16, 1,20, 1,23 and 1.21 respectively (all with $\alpha<0.001$). These imply that in social activities, all of the activities were rarely conducted by the respondents on the weekend.

In education activities, the mean value of campus trip, school trip, course trip and mean of education activities were 2.05, 1.27, 1.24 and 1.56 respectively (all with $\alpha<0.001$). These imply that in education activities, all of the activities were rarely conducted by the respondents on the weekend.

In work activities, the mean value of office trip, meet a client, attend a seminar, manage legal document, groceries shopping and mean of work activities were 1.89, 1.59, 1.73, 1.22, 1.88 and 1.66 respectively (all with $\alpha<0.001$). These imply that in work activities, all of the activities were rarely conducted by the respondents on the weekend.

In-home activities, the mean value of sleep, browsing the internet/ chat, watch TV and watch a video were 3.19, 3.47, 3.09 and 3.34 respectively (all with $\alpha<0.001$). The mean value of play a game and mean of home activities were 2.73 ($\alpha=0.004$) and 2.59 ($\alpha=0.004$) respectively. These imply that sleep, browsing the internet/ chat, watch TV, watch a video, and play a game were frequently conducted on weekend. The mean value of child-care, housekeeping and vehicle-care 1.15, 1.99 and 1.94 respectively (all with $\alpha<0.001$). The mean value of reading a book was 2.29 ($\alpha=0.004$). These imply that child-care, housekeeping, vehicle-care and read a book were rarely conducted on weekend.

There were some factors significantly considered by the respondents to decide weekend activities, i.e. trip duration, mode choice, activity duration, activity partner, activity time, congestion and work/ school assignment with the mean value of 3.12, 3.20, 3.12, 2.95, 3.06, 3.35 and 2.95 respectively.

In general, the respondents want to conduct the weekend activities at noon ($\alpha=0.018$) and they can realize that expectation ($\alpha=0.003$). In general, the respondents felt that weekend activities were able to recover them from fatigue due to weekdays workload. However, the positive mean responses of the respondents were only marginally above the average (2.60 with $\alpha=0.205$).

V. Conclusions and Recommendations

From the discussions in this paper, there are some conclusions as follow:

1. The respondents were rarely conducted recreation, sport, social, education, and work activities on the weekend along with some home activities, i.e. child-care, housekeeping, vehicle-care and read a book.
2. The respondents were frequently conducted worship activities on weekend along with with some home activities, i.e. sleep, browsing the internet/ chat, watch TV, watch a video, and play a game were frequently conducted on weekend.
3. There were some factors significantly considered by the respondents to decide weekend activities, i.e. trip duration, mode choice, activity duration, activity partner, activity time, congestion and work/ school assignment.
4. In general, the respondents want to conduct the weekend activities at noon and they can realize that expectation.

Based on the above conclusions, it is recommended that the transport authority provide a special traffic management scheme to anticipate peak weekend activity at noon.

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