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Analysis of On-street Parking Behavior in Downtown in Vientiane

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Abstract: Parking management is recognized as an important measure to meet parking demand of people. The lack of space in urban areas and inadequate off-street parking lead to on-street parking in city-wide in Vientiane. This paper aims to examine on-street curb parking behavior of vehicle users. The questionnaire survey was prepared, then survey team interviewed face to face with group of respondents including car parked drivers, shop owners and private employees. The result showed that vehicles parked over eight hours almost 63% in a day, while available parking spaces at morning time is much more than afternoon or evening time.

1. Introduction

The lack of space in urban area and inadequate off-street parking lead to overspill on-street curb parking in city-wide, there is a case of double parking along our road. These being influenced the traffic movement. Even though, the Asia Development Bank had studied about possibility to improve parking problem in 2013. However, the recent parking situation has been changed and it is getting worse. Especially, illegal on-street parking has been increasing along narrow roads thereby causing traffic congestion. Therefore, this study wants to clarify understanding of characteristic of parking behavior of vehicle users and indicate parking issues for future improvement.

2. On-street Parking Survey

300 samples of questionnaire were prepared and administered to respondents including parked drivers, shop owners and private employees. After determined target parking places, the survey team started interview face to face at different parking space, shops and private companies next to the parking place in central business areas. However, it rather difficult while interviewing due to interval reason from respondents and our team experiences. Finally, 235 samples are available. The aggregate analysis method is used in order indicate result from survey.

3. Results

3.1. Socio-demographic Characteristic

Regarding the share of respondents, 55% of the respondents were male and 45% were female. Young people (aged from 18-25 and 26-35 years old) occupied

the dominant share, totaling 71% of the whole sample. The people owned vehicle is height with 90%. And in term of vehicle type ownership, information shows that 38% was motorcycle is the highest share, 28% was car, 23% was pick up, 7 % was van and 4% was jeep accordingly.

3.2. On-street Parking Behavior Information

Asia Development Bank proposed site of on-street parking in central business areas as dash line.

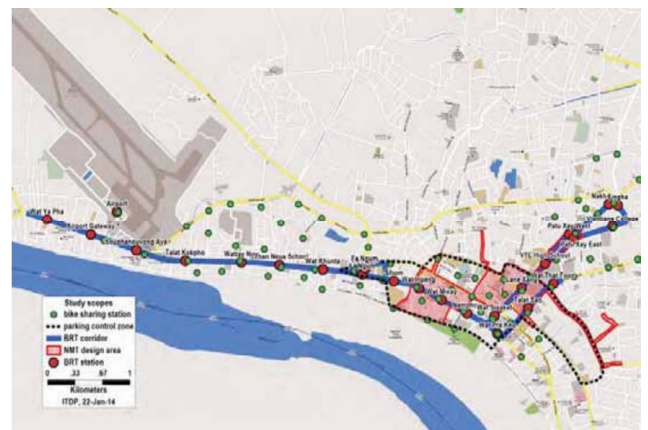


Figure1.Layout of on-street parking zone proposed by ADB

For, available time duration to park on-street parking. In the morning time, usually at 10:00am, 7:00am and 6:00am. While in the afternoon is at 14:00pm and 15:00pm. On the other hand, the difficult time to find available parking space is that, the morning is at 8:00am and 9:00am while afternoon is at 12:00pm and after 16:00pm. Information is show in figure 2 as below.

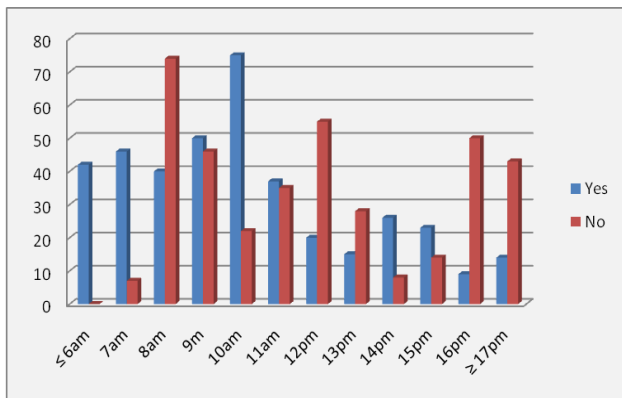


Figure 2. Show the time duration that can and can't find parking space in the day.

Regarding a reason for choosing parking space, 21% choose to parking space to safe for car, coming with free parking 17%, near destination 16%. While, 4% of respondent said that they choose on-street parking for short time and choose off-street parking for long time. Only 2% choose to park near bus station (bus).

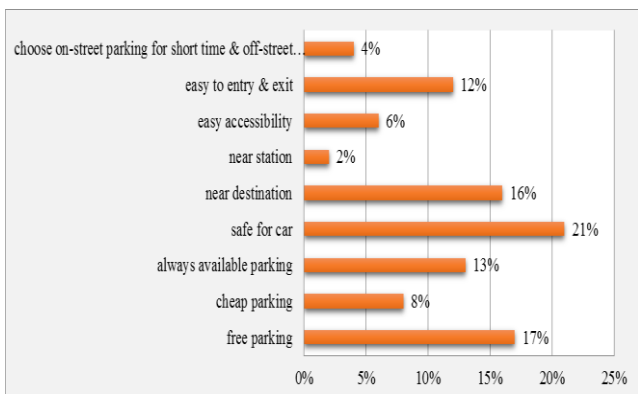


Figure 3. Reason for choosing parking place.

For parking frequency (figure 3) and frequency of parking at same place in a week (figure 4), mostly vehicles were parked over 8 hours (63%) and parked at same place between 5-7 days a week (63%).

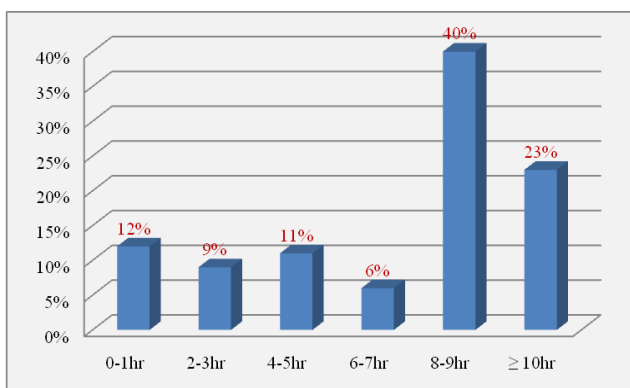


Figure 4. Parking frequency in a day

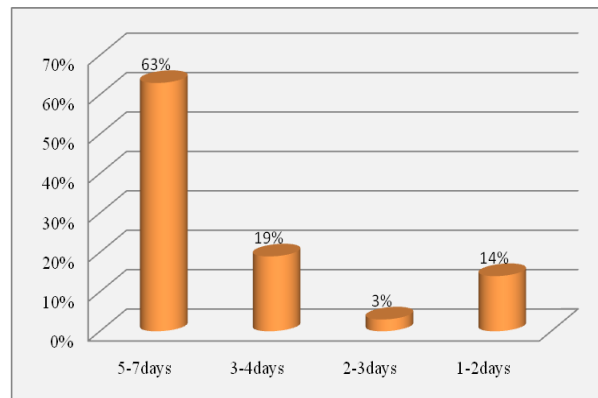


Figure 5. Frequency of parking at same place in a week.

4. Conclusion

Parking behavior patterns in Vientiane have been reviewed some relevant issues. These include existing parking potential, availabilities of open space, etc. A smart application of appropriate parking management measures should be combined with the proposals for on-street parking so as to mitigate some of its ill-effects.

This paper indicated significant information in line with trend of vehicle ownership increasing year by year. Available spaces for on-street parking (legal) in the morning and afternoon period is limited. Moreover, parking at over eight hours is the highest proportion of others (63%). In fact, it was known that capacity of road could not support amount of traffic volume.

For further study, it is necessary to estimate demand of parking space for allowing vehicles to park on street in line with road capacity.

5. References

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