Teenagers spatial behaviour in shopping in Bekasi City

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Abstract. This study aims to know teenagers spatial behaviour in shopping in Bekasi City. Research was conducted on a sample of 204 teenagers who had passed screening questionnaire about paths, edges, districts, nodes, and landmarks of shopping centers in Bekasi City. This research was used descriptive method with survey approach. The unit of analysis of this study was sub-district. Results indicated that teenagers shopping behaviour in each sub-district was different, depend on their cognitive maps of their own environment, including the location of shopping centers. Mostly, teenagers chose shopping center that located in same sub-district as them or nearest their sub-district for their shopping destination. The most visited shopping center that could cover teenagers from all sub-districts was the shopping center they had already known and could fulfill their needs, such as Summarecon Mal Bekasi. Teenagers could not describe their shopping behaviour to shopping centers they had never been visited.

1. Introduction

Human spatial behaviour is dependent on the individual’s cognitive map of the spatial environment. Cognitive map is a result of cognitive mapping, which is a process composed of a series of psychological transformations by which an individual acquires, codes, stores, recalls and decodes information about the relative locations and attributes of phenomena in his everyday spatial environment [1]. Spatial behaviour of the population of a region is influenced by the presence of facilities and infrastructure in the region. The forms of spatial behaviour [2] are trip to the workplace, determining place of recreation, determining where to live, shop, and so on.

Bekasi City as a buffer zone of the capital city of Jakarta is a region that has experienced rapid urban development. One of them was marked by the emergence of many shopping centers in Bekasi City. At least, Bekasi City has 16 shopping centers, including Grand Metropolitan, Metropolitan Mal, Bekasi Cyber Park, Mega Bekasi Hypermall, Lagoon Avenue Mall, Revo Town, Summarecon Mal Bekasi, Grand Galaxy Park, Grand Mal Bekasi, Plaza Pondok Gede, Bekasi Trade Center, Bekasi Trade Center 2, Blu Plaza, Bekasi Junction, Plaza Cibubur, and Mal Ciputra Cibubur. Part of the residents of Bekasi City who are consumers of shopping centers, one of them is teenagers. Teenagers have a high purchasing power and become the right target for retailers [4].

Shopping is an activity that involves consideration of products or services with an intention to buy, looking for stores that provide the best products or services [5]. Shopping is part of a person's daily
behaviour. In shopping someone will be influenced by pre-shopping decisions to determine how to get to the shopping center and with whom to shop [6]. Shopping is also influenced by several motivations, including hedonic motivation, which is shopping to seek entertainment, and utilitarian motivation to find a specific product [5]. Socializing is also one of teenagers shopping motivations [7]. Teenagers in shopping at shopping center often use their free time [7]. In shopping at shopping centers, teenagers always have a certain way of looking to show their self-image [8].

Spatial behaviour of the population of a region is influenced by the presence of facilities and infrastructure in the region. Spatial behaviour of teenagers in Bekasi City is influenced by their cognitive maps of the condition of Bekasi City which has many shopping centers. One form of teenagers spatial behaviour of Bekasi City is shopping behaviour. The behaviour of teenagers in shopping has certain characteristics that distinguish them from consumers of other age groups. The aim of this study is to know the spatial behaviour of teenagers in shopping in Bekasi City.

2. Method
This study aims to know teenagers spatial behaviour in shopping in Bekasi City. This study was conducted on May 2018 – October 2018. The method used in this study was descriptive method with survey approach. Unit analysis used in this research was sub-districts.

Data were obtained by using questionnaires. The first was screening questionnaire to select respondents that had cognitive maps about shopping centers located in Bekasi City. They were asked to check on the tables of 5 elements of cognitive map according to Lynch including paths, edges, districts, nodes, and landmarks [9]. The 5 cognitive map elements contained in the screening questionnaire consisted of knowledge of shopping centers located in Bekasi City, source of knowing the shopping centers, shopping centers characteristic, reference points, landmarks, and location of shopping centers.

If 50% or more of the total number of questions can be answered correctly, then the person will become a respondent. After that, the respondents filled the questionnaire about behaviour in shopping. The samples of this study was 204 teenagers residents of Bekasi City from total amount of 249.013 teenagers residents. Those 204 samples were teenagers who had passed the screening questionnaire. Amount of sample is determined using the Slovin formula with an estimated error rate of 7%. The 204 samples will be distributed into 12 sub-districts in Bekasi City.

3. Result and Discussion
Based on the results, over all teenagers have good cognitive map of shopping centers in Bekasi City. Teenagers behaviour in shopping can vary depend on the cognitive map they have. Teenagers shopping behaviour in this study was identified from pre-shopping, shopping time, shopping motivation, and shopping appearance.

3.1. Teenagers Cognitive Map
Teenagers have good cognitive map of almost all shopping centers in Bekasi City. It can be seen from this following table.
Table 1. Teenagers cognitive map of shopping centers

| Shopping Center          | Good Cognitive Map | Bad Cognitive Map |
|-------------------------|--------------------|-------------------|
|                         | F  | %  | F  | %  |     |
| Grand Metropolitan      | 199 | 98 | 5  | 2  |     |
| Mal Metropolitan        | 201 | 99 | 3  | 1  |     |
| Mega Bekasi Hypermall   | 169 | 83 | 35 | 17 |     |
| Summarecon Mal Bekasi   | 193 | 95 | 11 | 5  |     |
| Plasa Cibubur           | 55  | 27 | 249| 73 |     |
| Mal Ciputra Cibubur     | 47  | 23 | 157| 77 |     |
| Plaza Pondok Gede       | 96  | 47 | 108| 53 |     |

Source: Research result, 2018

Teenagers have good cognitive map because they have already visited the shopping centers. They know landmarks, paths, edges, nodes, and district of shopping center. Teenagers who have bad cognitive map because they have not visited the shopping centers so that they do not really know the landmarks, paths, edges, nodes, and district of shopping centers.

3.2. Pre-shopping

The cognitive map plays a role in deciding what choice to make and whether one has to travel or not to achieve a goal; it helps decide where to go, which route to take, and what travel mode to take to get there [10]. In the spatial behaviour of teenagers in shopping, cognitive map has a role in determining pre-shopping decisions. The decision includes who will be companion for teenagers when shopping and how to get to the shopping center. The companion of teenagers when shopping can be seen from this following table.

Table 2. Teenagers companion when shopping

| Answer Choices | Frequency | Percentage (%) |
|----------------|-----------|----------------|
| Friends        | 113       | 55             |
| Close Friend   | 26        | 13             |
| Family         | 59        | 29             |
| Themselves     | 6         | 3              |
| Others         | -         | -              |

Source: Research result, 2018

Table 3. Teenagers per sub-distruct companion when shopping

| Sub-district          | Companion       |
|-----------------------|-----------------|
| Pondok Gede, Jatisampurna, Pondok Melati, Mustikajaya, East Bekasi, Rawalumbu, South Bekasi, West Bekasi, Medan Satria, North Bekasi, Bantargebang, Family Rawalumbu |

Source: Research result, 2018
When making pre-shopping decision that includes those who will be companion when shopping, mostly teenagers in Bekasi City choose their friends to be companion. According to table 3, teenagers who usually shopping with friends come from 9 sub-districts including Pondok Gede, Jatisampurna, Pondok Melati, Jatisaih, Mustikajaya, East Bekasi, South Bekasi, Medan Satria, and North Bekasi. And teenagers who usually go shopping with family only come from Bantargebang. Only teenagers from Rawalumbu usually shopping with friends and family.

Teenagers from every sub-district mostly choose a motorcycle as their transportation mode, as much as 55%. But, there are only two sub-districts including Mustikajaya and East Bekasi that choose online transportation as their transportation mode to get to shopping center, as much as 26%. There are 29% of teenagers from all sub-districts who choose car, public transportation, and even walking when go to shopping centers.

3.3. Shopping Time

Shopping time consisted of the day that teenagers spent, shopping frequency, and shopping duration of teenager in shopping centers. Teenagers in Bekasi City usually shopping on weekends but there are some of them who usually shopping on weekdays. Teenagers shopping time can be seen from these tables below.

**Table 4.** Day(s) teenagers used to shopping

| Answer Choices | Frequency | Percentage (%) |
|----------------|-----------|----------------|
| Weekdays       | 63        | 31             |
| Weekends       | 135       | 66             |
| Others         | 6         | 3              |

Source: Research result, 2018

**Table 5.** Day(s) teenagers per sub-district used to shopping.

| Sub-district | Day(s)          |
|--------------|-----------------|
| Jatisampurna | Weekdays after school |
| -            | Weekdays in the evening |
| Pondok Gede, West Bekasi | Weekdays in afternoon |
| Jatisampurna, Pondok Melati, Jatisaih, East Bekasi, Rawalumbu, South Bekasi, Medan Satria | Weekend in the afternoon |
| Bantargebang, Mustikajaya, North Bekasi | Weekend in the evening |

Source: Research result, 2018

Mostly, teenagers from all sub-districts shopping 2 to 4 times/month, only Jatiasih, Bantargebang, and North Bekasi shopping once/month. As they stated, the duration of shopping can vary from 2 to more than 4 hours.

3.4. Shopping Motivation

There are some motivations on shopping, including socializing, seeking for entertain (watching movies), refreshing, seeking the latest trend, and utilitarian shopping (to find a specific product). Utilitarian shopping at this context is divided to eating and buying fashion product. Teenagers shopping motivation can be seen from this following table.
Table 6. Teenagers shopping motivation

| Answer Choices      | Frequency | Percentage (%) |
|---------------------|-----------|----------------|
| Socializing         | 5         | 2              |
| Watching movies     | 71        | 35             |
| Eating              | 20        | 10             |
| Buying fashion product | 39      | 19             |
| Refreshing          | 69        | 34             |
| Seeking for the latest trend | -     | -              |

Source: Research result, 2018

Table 7. Teenagers per sub-district shopping motivation

| Sub-district       | Motivation                  |
|--------------------|------------------------------|
| Jatisampurna       | Watching movie              |
| Pondok Melati,     | Watching movies             |
| Jatiasih, Mustikajaya, Rawalumbu, West Bekasi, Medan Satria, North Bekasi | Watching movies |
| Pondok gede, West Bekasi | Eating                   |
| Bantargebang, East Bekasi, Rawalumbu, South Bekasi, Medan Satria | Refreshing |
| -                  | Seeking the latest trend    |

Source: Research result, 2018

According to table 6, teenagers shopping behaviour have a majority in watching movies. It is shown by teenagers from Jatisampurna, Pondok Melati, Jatiasih, Mustikajaya, Rawalumbu, West Bekasi, Medan Satria and North Bekasi sub-districts, even though there are several sub-districts that not only tend to watching movies when shopping, such as teenagers from Rawalumbu which also tends to refreshing. Teenagers from Bantargebang, East Bekasi, Rawalumbu, South Bekasi, Medan Satria tend to refreshing while teenagers from Pondok Gede and West Bekasi tend to buying fashion product, and teenagers from Jatisampurna tends to eating.

3.4.1. Watching Movies Motivation
As teenagers stated, when they are motivated to watching movies, they tend to watch on weekends or when day-off (65%), only teenagers from Rawalumbu tends to watch movies on Monday to Thursday. Teenagers from Jatisampurna do not matter whether they watch movies on Monday to Thursday or weekends. And mostly, they watch movies with friends (58%), except teenagers from Bantargebang which are okay to watch movies with their family.

3.4.2. Refreshing Motivation
When teenagers are motivated to refreshing, teenagers from 10 sub-districts choose window shopping (55%) as their behaviour. Only teenagers from Bantargebang choose looking for entertainment that held by its shopping center, and teenagers from Medan Satria have same both frequency choices.
Table 8. Shopping centers for shopping

| Sub-district                  | Shopping centers      |
|------------------------------|-----------------------|
| Rawalumbu, West Bekasi       | Grand Metropolitan    |
| -                            | Mal Metropolitan      |
| -                            | Mega Bekasi           |
| Jatiasih, Bantargebang, Mustikajaya, East Bekasi, South Bekasi, Medan Satria, North Bekasi | Summarecon Mal Bekasi |
| -                            | Plasa Cibubur         |
| Jatisampurna, Pondok Melati  | Mal Ciputra           |
| Pondok Gede, Pondok Melati   | Plaza Pondok Gede     |

Source: Research result, 2018

Most visited shopping center when motivated to refreshing and watching movies are Summarecon Mal Bekasi (SMB). SMB is chosen by 7 sub-districts. Teenagers from Jatisampurna tends to choose shopping at Mal Ciputra Cibubur who is located in same sub-district, this happened also in teenagers from Pondok Gede sub-district. Teenagers from Pondok Melati likes to shopping at Mal Ciputra Cibubur and Plaza Pondok Gede, both shopping centers are located nearby Pondok Melati sub-districts, this happened in teenagers from Rawalumbu and West Bekasi which prefer to visit shopping center that located in near their area, such as Grand Metropolitan. It shows teenagers per sub-district coverage in shopping, and it can be transformed into this following map.
Figure 1. Map of teenagers per sub-district coverage in shopping in Bekasi City

Those are related to movement frequencies, which are distances between origins and destinations, decline of movement frequency with increasing distance, as stated by Golledge and Stimson [11]. It is also related to what Sudas and Gokten [10] stated that people have better images of the urban spaces which they use more frequently. Teenagers from Pondok Gede, Jatisampurna, Pondok Melati, Rawalumbu, and some villages of West Bekasi are far enough to get to SMB, therefore they prefer shopping center that located near their area.

It also can be stated that SMB is a shopping center that can cover most sub-districts in Bekasi City. SMB has lifestyle and hangout place characteristic. It also has many restaurants, coffee shops, and branded fashion stores inside. It can be described into this following map.
3.4.3. Eating Motivation and Buying Fashion Product
The results of this study also show when teenagers are motivated to eat, they tend to eat in Restaurant, that chosen by 7 sub-districts including Pondok Gede, Jatisampurna, Pondok Melati, Mustika Jaya, East Bekasi, South Bekasi, and North Bekasi. Teenagers from Bantargebang and Rawalumbu sub-district tend to eat in Food Court while coffee shop is only chosen by Medan Satria. Teenagers from Jatiasih sub-district are okay whether they eat in Food Court or Restaurant.

When motivated to eat, teenagers from 9 sub-districts spent their money on it about Rp 50,000 to Rp 100,000. Teenagers from Pondok Melati and East Bekasi sub-district spent about Rp 100,000 to Rp 150,000, and teenagers from Jatiasih sub-district spent less than Rp 50,000.

When teenagers motivated to buy fashion product, most of them choose to buy shirt. It is chosen by teenagers from 11 sub-districts including Pondok Gede, Jatisampurna, Pondok Melati, Jatiasih, Bantargebang, Mustikajaya, East Bekasi, Rawalumbu, West Bekasi, Medan Satria, and North Bekasi. Only teenagers from South Bekasi choose to buy shoes.
3.5. Shopping Appearance

Teenagers have a majority to look stylish when shopping in Summarecon Mal Bekasi (56%), while in others shopping centers such as Grand Metropolitan 38%, Mal Metropolitan 30%, Mega Bekasi Hypermall 13%, Mal Ciputra Cibubur 12%, Plasa Cibubur 9%, and Plaza Pondok Gede only 4% who will be looked stylish.

Teenagers per sub-district shopping appearance can be seen from this following table.

| Sub-district   | Look     | Shopping Center                                                                 |
|----------------|----------|---------------------------------------------------------------------------------|
| Pondok Gede    | Stylish  | Summarecon Mal Bekasi                                                            |
|                | Not stylish | Grand Metropolitan, Mal Metropolitan, Mega Bekasi Hypermall, Plaza Pondok Gede |
| Jatisampurna   | Stylish  | Summarecon Mal Bekasi                                                            |
|                | Not stylish | Mal Metropolitan, Plasa Cibubur, Mal Ciputra Cibubur, Plaza Pondok Gede, Summarecon Mal Bekasi |
| Pondok Melati  | Stylish  | Summarecon Mal Bekasi                                                            |
|                | Not stylish | Mega Bekasi, Mal Metropolitan, Plasa Cibubur, Mal Ciputra, dan Plaza Pondok Gede |
| Jatiasih       | Stylish  | Summarecon Mal Bekasi                                                            |
|                | Not stylish | Grand Metropolitan, Mal Metropolitan, Mega Bekasi Hypermall                      |
| Bantargebang   | Stylish  | Summarecon Mal Bekasi, Grand Metropolitan                                        |
|                | Not stylish | Mal Metropolitan, Mega Bekasi Hypermall, Grand Metropolitan                     |
| Mustikajaya    | Stylish  | Summarecon Mal Bekasi, Grand Metropolitan                                        |
|                | Not stylish | Mal Metropolitan, Mega Bekasi Hypermall                                           |
| East Bekasi    | Stylish  | -                                                                               |
|                | Not stylish | Grand Metropolitan, Mal Metropolitan, Mega Bekasi Hypermall, Summarecon Mal Bekasi |
| Rawalumbu      | Stylish  | Grand Metropolitan, Mal Metropolitan, Summarecon Mal Bekasi                       |
|                | Not stylish | Mega Bekasi Hypermall                                                            |
| South Bekasi   | Stylish  | Summarecon Mal Bekasi                                                            |
|                | Not stylish | Grand Metropolitan, Mal Metropolitan, Mega Bekasi Hypermall, Summarecon Mal Bekasi |
| West Bekasi    | Stylish  | -                                                                               |
|                | Not stylish | Grand Metropolitan, Mal Metropolitan, Mega Bekasi Hypermall, Summarecon Mal Bekasi |
| Medan Satria   | Stylish  | Summarecon Mal Bekasi                                                            |
|                | Not stylish | Grand Metropolitan, Mal Metropolitan, Mega Bekasi Hypermall                      |
| North Bekasi   | Stylish  | Summarecon Mal Bekasi                                                            |
|                | Not stylish | Grand Metropolitan, Mal Metropolitan, Mega Bekasi Hypermall                      |

Source: Research result, 2018
Teenagers will be looked stylish when shopping in luxury shopping center with high price products including it, and tend to looked not stylish when shopping in shopping center with lower price products [8]. As shown in the table, mostly teenagers will be looked stylish when shopping in SMB, they will be looked not stylish when shopping in Grand Metropolitan even though both of them are luxury shopping centers. And from the table, can be seen that mostly all sub-districts do not choose Plasa Cibubur, Mal Ciputra Cibubur, and Plaza Pondok Gede, to be looked stylish or not stylish, because most of them have not visited those three shopping centers.

The way people react to different environments greatly depends on their perceptions of those environments and the relation with the environment depends on each person’s mental images and representations, as stated by Cassidy on Sudas and Gokten [11]. These images can be related to a vast scale like the whole world, a continent, a region, a town or even a section of a town. Cognitive maps are the main tools that are used to identify spatial images and the difference between physical and subjective environments, as stated by Milgram on Sudas and Gokten [11].

From table 9 we can see that almost teenagers from all sub-districts do not choose Plasa Cibubur, Mal Ciputra Cibubur, and Plaza Pondok Gede whether to look stylish or not stylish because they have never visited those shopping centers. Only teenagers from Jatisampurna and Pondok melati sub-districts who can show their shopping appearance when shopping in Plasa Cibubur and Mal Ciputra, and the same thing was done by the teenagers from Pondok Gede and Pondok Melati sub-districts to Plaza Pondok Gede. This indicates that it is not a shopping center factor that affects teenagers appearance in shopping, but their cognitive maps of its shopping center. The distance that is further from their origin sub-district makes the majority of Bekasi City teenagers have never visited Plasa Cibubur, Mal Ciputa Cibubur, and Plaza Pondok Gede. And also those three shopping centers are located outskirts in the city border. Teenagers are not able to form accurate cognitive map because they have never visited the shopping center.

Individual differences between cognitive maps arise due to differences in how well people know the locality [12]. Jatisampurna sub-district teenagers have a better ability to shape their cognitive maps than teenagers in other sub-districts, because teenagers in Jatisampurna sub-district are already very familiar with Plasa Cibubur and Mal Ciputa Cibubur (they often shopping in Plasa Cibubur and Mal Ciputa Cibubur).

4. Conclusion
Teenagers spatial behaviour in shopping depends on their cognitive maps of their environment, including their origin sub-district and shopping center. Their cognitive maps play a role on helping them deciding what they want to do, what time to do, where to do, what to wear, and how much the money took when shopping at shopping center. As example, teenagers usually shop for refreshing or watch movies, shop with friends, shop on weekends, shop in Summarecon Mal Bekasi with a stylish look, etc.

Mostly, teenagers choose shopping center that located in same sub-district as them or nearest their sub-district for their shopping destination. The most visited shopping center that can cover teenagers from all sub-districts is the shopping center that teenagers have already known and this shopping center can fulfill their needs, such as Summarecon Mal Bekasi. Teenagers can not describe their shopping behaviour to shopping centers they have never been visited.

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