THE EFFECTS OF PUBLIC OPEN SPACES TO DOUBLE-STOREY HOUSING PRICES IN KUALA LUMPUR, MALAYSIA

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Abstract

This research is about a study on the effect of public open space on house price of double-storey houses in four selected neighbourhoods in Kuala Lumpur, Malaysia. It begins with an interest to study how the provision of public open space could affect the housing prices. In this regards, the double-storey terraced houses were selected as an attempt to see the degree of effect. Literatures in the global and regional settings indicate that the provision of public open space has a significant contribution to the increment of housing prices in its ambient context. In a local context, there are very few studies undertaken to investigate the relationship between the provision of public open space and house prices. Therefore, this research attempts to study the relationship between public open space and house prices in terms of its pattern and strength in the neighbourhoods of Taman Melawati, Subang Jaya, Bandar Baru Bangi and Shah Alam. This situation leads to the objectives which are to determine the elements of open spaces that influence the house prices; and to discover the relationship between open space and house prices in Kuala Lumpur. The research adopted (1) literature reviews; (2) structured close-ended questions in questionnaire survey; and (3) site observation for data collection, surveyed a total of 200 double-storey terraced houses in Bandar Baru Bangi, Taman Melawati, Subang Jaya and Shah Alam. The results of Cronbach’s alpha value for green areas and its independent variables were 0.895 and considered acceptable, allowing the research to retain all variables for the analysis. The finding shows that the respondents preferred cleanliness as the most important element of open space; followed by regular maintenance, facilities provided for the users and the strategic location of open space; these reflecting the elements of the management aspect rather than the planning aspect of open space. In addition, the finding also suggests that the relationship between the provision of public open space and house prices does establish a positive pattern. However, it is not considered as a strong association. To conclude, this research has achieved its objectives, proven that there is a relationship between the provision of public open space and house price in the context of the Malaysian housing market.

Keywords: open space, house price, double-storey terraced house, relationship, Kuala Lumpur

1 INTRODUCTION

The importance of urban green spaces has been long known as they provide various benefits to the population in term of a healthy environment as well as providing higher quality of life (Bedimo-Rung et al., 2005). Furthermore, as indicated by Baycan-Levent and Nijkamp (n.d), the benefits of green spaces have been highlighted in a more rational and convincing way by incorporating the benefits into social, economic, ecological and community planning benefits. In fact, history shows urban land use planning and the urban land market are co-existed in current economic and decision-making process that eventually fluctuate the market price of housing stock. There is an increasing awareness that urban environmental quality is highly favoured by the existence of accessible, protected and well maintained green spaces within cities, for instance, parks, green provisions, fields and others. In recent years, several urban sustainability initiatives have made a serious attempt to offer a more rigorous basis for green space planning. As a result, many initiatives and concepts such as urban planning with nature, garden city planning, brownfield-greenfield planning, urban green networks design, urban landscape ecology planning and so forth have been emerged globally (Beer, Delshammar and Scildwacht., 1993; De Sousa, 2003; MacHarg, 1971; Jim, 2004; Pauleit, 2003; Tjallingii,
Green and Red, 2003). Nowadays, there is a particular concern about the urgent need for open spaces within the urban fabric in Malaysia. The community acknowledges the importance of the provision of open spaces as it provides significant services to the environmental quality of the areas such as preserving wildlife habitat and enhancing the quality of life. In relation to the economic growth of the nation, it is greatly noticeable that currently there is an increasing trend in the Malaysian housing price. Other researches show that the house price movements are very much influenced by both fundamental macro and micro factors such as real income growth, interest rate, supply and demand of housing units, location, house design and others. However, there are not many studies undertaken to investigate the relationship between the provision of open space and house price in the Malaysian context. Researches conducted by Anderson and Cordell (1988) and Morancho (2003) indicate that the relationship between the green areas (open spaces) and house price do exist. They conclude that house price was influenced by the availability of green areas (open spaces) and other amenities and infrastructures.

The research problem addresses the issue of the loss of open spaces to give way to other developments is obviously occurring in Kuala Lumpur, Malaysia. Over the years, the loss of green space to give way to other developments is significantly taken place in Kuala Lumpur and its neighbouring areas such as Nilai and Seremban. This situation raises the question on the importance of green space for the key players in the housing industry within Kuala Lumpur. Besides that, the questions on how much importance green area to economic matters, including the factor for house pricing becomes one of the factors for implementation in planning and development decision. This includes residential areas in the developed townships.

Within the context of urban planning implementation policies, the issue of provision of green areas is normally associated with: the requirement mentioned in any proposed plan or development plan; and State Planning Authority should reserve the green areas as part of open spaces under section 62 and 204D, National Land Code 1956, i.e. common planning practice requires a 10% of the total development areas. In general, the current practice shows that the Federal Department of Town and Country Planning (FDTCP) has set a policy of 10 percent for open spaces for each development application. However, the 10 percent policy is merely a base reference only. In a common circumstance, the ‘general approach’ implemented by Negeri Sembilan and Kelantan is based on the basic 10 percent provision of open spaces for all types of residential development. The general approach is applied in total (stand-alone) or as a continuous policy as set by FDTCP.

As such, the aim of this research is to study the effects of public open space and the house price of double-storey houses in Kuala Lumpur. Based on the stated research problem, the study aim and objectives have been determined for this research. This leads to the objectives that are:

i. To determine the elements of open space that influence the house price;
ii. To determine the major micro factors involved in purchasing a house; and
iii. To analyse the strength of the effects of the provision of public open space to the housing price.

The scope of the study covers the aspects of: public open space (availability and distance; elements of open space-hierarchy, facilities and maintenance); the house price (double-storey terraced house; micro and macro factors); and GIS application (spatial distribution; locational/distance; Relative Importance Index).

2 REVIEWS ON PUBLIC OPEN SPACE, HOUSE PRICE AND GIS TECHNIQUE

This section addresses about the reviews on the key topics of the research, i.e., open space and house price. It is important to see the relevance of the subject, its significance and how it contributes to the analysis part in relation to see the relationship between open space and house price from the perspective of literature reviews that will cross-reference later with the results of the analysis.

2.1 Open Space as Environmental Goods in Neighbourhood Areas

In the Malaysian local context, the definition of open spaces under Section 2 (1) Town and Country Planning Act 1976 (Act 172) is “any land that is enclosed or not enclosed, for use or reserved for the use in whole or in parts as public gardens, public parks, public sports and recreational fields, tourism areas, pathways or public places” (p. 15). In general, open spaces can be considered as an open area designated for the public to carry out their recreational activities. The development of environmental awareness has resulted in a strong demand by urban residents for green space/open space for various purposes, including aesthetic enjoyment, recreation, and access to clean air or a relatively quiet environment (Miller, 1997; Tyrvainen and Miettinen, 2000). However, authors like Grey and Deneke (1978), Miller (1997), and More et al. (1988) say that amenity values attached to urban open spaces are considered as non-market price to the environmental benefits that cannot be directly traded on an open market. Such conflicting trends raise the need for green space protection.
and allocation, which in turn requires estimates of the recreational value of green spaces. The determination of the value to society of such non-market priced recreation resources is not a new concept to environmentalist and economists. The trend in the housing market shows that the contingent valuation method is the most prevalent method used to estimate the economic value of environmental goods. The global environmental movement has led to the recognition of open space as significant environmental goods in order to enhance the quality of life of urban dwellers. Though the effect of open space as environmental goods is not strong enough, its provision within residential areas is given emphasis by the government. Literature suggests there are several factors that can make the provision of open space at satisfactory acceptance of the community. Amongst others are the factors of good location setting, the proximity of open space in residential areas, an adequate size, the facilities provided, regular well maintenance, cleanliness and so forth. The combination of these factors would encourage the users/community to visit the open space and consequently regard it as valuable environmental goods for them. The provision of public open spaces has many benefits for the community. Green areas are important in the housing areas as they produce many positive implications to the overall development as suggested by many scholars. These elements include the importance of green areas in improving the quality of life, enhancing the environmental quality and conservation tool for sustainable development.

2.2 Planning for Open Space

It is noticeable that the provision of open spaces is merely to meet the approval requirements set by state governments and local planning authorities (LPAs). Therefore, it is important that the state governments in Malaysia ensure that the implementation policy for its open spaces is in accordance with the Planning Standard Guidelines for Open Spaces and Recreation, second edition (JBPD 7/2006) issued by the Federal Department of Town and Country Planning (FDTCP) Peninsular Malaysia. The commitment by each LA to implement the open space policy within their respective jurisdiction is a key step in ensuring that the provision of open spaces is not ignored by the developers in their proposed developments. In general, FDTCP has set a policy of 10 percent for open spaces for each development application. However, the 10 percent policy is merely a base reference. According to FDTCP (2009), the states bound by the Town and Country Planning Act 1976 (Act 172) have the option of implementing the open space policy in various ways for development in their respective states.

Considering the provision of adequate open space for public use is not sufficient to ensure that the community will enjoy it at an optimum level. There are several factors found to be important for use of open space. Sugiyama, Leslie, Giles-Corti and Owen (2008) and Payne, Orsaga-Smith, Roy, and Godbey (2005) stated that good accessibility to parks is vital as it will motivate the users to come open space. People would be encouraged to go to any open space if they discovered that there will be easy access to the place. In addition, good and convenient features or facilities for instance, swings, paths, bike tracks and others are also regarded as an essential element for having good open space as studied by Lloyd, Burden and Kieva (2008) and Giles-Corti et al. (2005). Meanwhile McCormack, Rock, Toohey and Hignell (2010) suggested that the element of condition (in relation to maintenance), aesthetics (environmental elements, for example ponds, birdlife, trees, bushes) and safety (such as lighting, traffic, broken glass) is amongst other important elements of open space to be considered as of high quality. In terms of types and hierarchy of open space provide in Malaysia, there are certain guidelines to be observed. The Federal Town and Country Planning Department has set the level of the hierarchy of open space that should refer to the size of the area and its population catchment size (Refer Table 1).

<table>
<thead>
<tr>
<th>Hierarchy</th>
<th>Size of area (hectare)</th>
<th>Population size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. National park</td>
<td>Unlimited size</td>
<td>Nation population</td>
</tr>
<tr>
<td>2. Regional park</td>
<td>100</td>
<td>Regional population</td>
</tr>
<tr>
<td>3. Urban park</td>
<td>40</td>
<td>50,000</td>
</tr>
<tr>
<td>4. Local park</td>
<td>8</td>
<td>12,000-50,000</td>
</tr>
<tr>
<td>5. Neighbourhood park</td>
<td>2</td>
<td>3,000-12,000</td>
</tr>
<tr>
<td>6. Playing field</td>
<td>0.6</td>
<td>1,000-3,000</td>
</tr>
<tr>
<td>7. Playing lot</td>
<td>0.2</td>
<td>300-1,000</td>
</tr>
</tbody>
</table>

Source: Federal Town and Country Planning Department, Peninsular Malaysia (2009)

2.3 Major and micro factors determining housing price

There are numerous factors involved in determining house prices that basically relate with the economic and social considerations in one’s country. In this context, the interests of many involved stakeholders have been
taken into account that generally reflects the housing market scenario. The factors can be largely divided into two: macro factor and micro factor. For macro factors, it associates with the following details: gross domestic product (GDP); interest rate; supply and demand; economic factor; government policies; bank policies; house price movement; population pattern; labour force pattern; inflation rates; and real property gain tax (RPGT). Meanwhile, for the micro factors, it involves the followings: house design and size; location and distance; public facilities; and accessibility.

3 RESEARCH METHODS

3.1 Literature Review

This research uses working documents from the subjects of open space and house price as evidential materials. In this regard, the literature review is considered as part of the document analysis. It plays an important role as it provides background information that provides a link with the analysis stage. A wide range of documents such as planning guidelines, government reports, plans, and journals related to open space and house price were referred to, such as the planning guidelines for recreational and open space (Department of Town and Country Planning, 2005). Other essential sources include the Property Market published by Valuation and Property Services Department (JPPH) under the Malaysian Ministry of Finance and both the online and offline house for sale advertisements. In relation to the subjects concern with the research, numerous studies elsewhere, use various techniques to investigate the relationship between a home’s sale price and the availability of open space. The studies at the international level demonstrate the general pattern of relationship between open space and house price in which it explains the situation in a different context.

3.2 Questionnaire Survey

The convenience non-random sampling was applied as this method refers to the situation whereby not everyone has an equal opportunity to be selected as samples (Shamhuri, 2004). In this regards, the basic criterion was the respondents are the house owners. As such, the non-house owners were disqualified to participate in the survey. The targeted total respondents are 200 due to time limitation and logistical difficulties. Though the number is not so robust to represent the scenario in Klang Valley, the analysis still can be considered as reflecting the house market in relation to the provision of open space. The questionnaire form used ‘structured and close-ended questions’. It included three sections: the respondents’ profiles; information about the house; and the influence of open space and the micro factors associated with the house price. Therefore, the targeted population selected encompassed by those reside in Taman Melawati, Subang Jaya, Bandar Baru Bangi and Shah Alam which are located within the Kuala Lumpur metropolitan area. In this regards, the basic criterion was the respondents are the house owners of double-storey terraced house. As such, the non-house owners were disqualified to participate in the survey. Each site has been divided into five survey parcels determined by the researchers. Every parcel has been labeled with sequenced numbers based on each study area in order to ensure target respondents can be reached in optimum period and manner. For convenient purpose, 50 respondents were selected from each survey parcel representing their residential areas based on the distance to the open space.

3.3 Site Observation

Site observation was used to obtain information on existing physical conditions of open space in the selected sites, in which every survey parcel was observed. The researchers had observed the four selected sites, covering the ground work in Taman Melawati, Subang Jaya, Bandar Baru Bangi and Shah Alam. The provision of open spaces within the selected townships, range from the quality of good, moderate and poor at the level of quality of open spaces could affect the house prices. The observations were done several times during the weekends and weekdays to see the generic situation of the sites. The information was recorded in the form of photographs and mapping system to locate the distribution of participating respondents in the questionnaire survey fieldwork. In addition, a checklist matrix was used to indicate the details of the open spaces, for instance the quality of the place in terms of the availability of facilities and so forth.

4 RESULTS AND ANALYSIS

4.1 Socioeconomic Profiles of Respondents

It is important to know the background of the respondents so that the feedbacks given to the other questions were valid for analysis. The reliability test was conducted and the results of Cronbach’s alpha value for green areas and its independent variables were 0.895 and considered acceptable, allowing the research to retain all variables for the analysis. Table 2 shows the information on the profiles of the total of 200 respondents who are the owners of the houses. In terms of gender of respondents, 54% of them are male. The dominant age range is mostly between 41-50 years old (47.5%), indicating their maturity in their working experience and still active

in the economic productivity. Working in the private sector seems as the dominant working sector amongst the respondents (41%) and followed by government servants (26.5%). In terms of monthly salary, the majority (48%) of them receive RM5,000/month and this is followed by 37% of them have their salaries between RM5,000-RM10,000/month. Meanwhile, information on house showed that the majority, 35.5% and 22% of them had owned the house between 6-10 years and 11-15 years respectively.

Table 2: Socioeconomic profiles of respondents

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Gender</th>
<th>Age</th>
<th>Monthly income</th>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male (54%)</td>
<td>20-30 yr (3%)</td>
<td>&lt;RM5,000</td>
<td>Government servant (26.5%)</td>
</tr>
<tr>
<td></td>
<td>Female (46%)</td>
<td>31-40 yr (21%)</td>
<td>RM5,001-RM10,000</td>
<td>Private worker (41%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>41-50 yr (47.5%)</td>
<td>RM10,001-RM15,000</td>
<td>Self-employment (24%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>51-60 yr (25%)</td>
<td>RM15,001-RM20,000</td>
<td>Retired (8.5%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>&gt;60 yr (3.5%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Length of house ownership</td>
<td>1st yr (3%)</td>
<td>2nd-5th yr (21.5%)</td>
<td>6th-10th yr (35.5%)</td>
<td>11th-15th yr (22%)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>11th-15th yr (22%)</td>
<td>&gt;16th yr (18%)</td>
<td></td>
</tr>
</tbody>
</table>

4.2 House Price

The respondents were asked about the transacted price of their houses; 43.5% of them informed that it was between the range of RM201,000-RM300,000. If they planned to sell their houses in the near future, 24.5% of them would sell at the price between the range of RM501,000-RM600,000. It means that the difference of price would be RM300,000 (Refer Fig.1). The result shows that the majority of respondents felt confident that their houses would be much more expensive in the future whereby they considered the house price would be in the range between 401,000-RM700,000. It means that the rate of increment would be around 6%. This reflects the same pattern of the anticipation made by C. H. Williams, Talhar and Wong Sdn Bhd., stated that the house price for landed property will continue to move upwards due to higher cost of land, construction material and labour cost. They anticipated the house price will increase by 7% annually.

Fig. 1: The transacted price and offered price perceived by the respondents

Table 3 indicates the average asking price (AAP) of typical double-storey terraced houses located within the four selected areas for the period of four years (2010-2013). It shows the houses in Taman Melawati have the highest house price that is more than RM1million compared to the other three areas. During that period, the average house price in Taman Melawati is RM897,916. It also records the highest average price change, i.e. 42.8% in that 4-year period compared to the other three areas. The establishment of Taman Melawati which was initiated much earlier than the other three areas is seen as the key factor for the encouraging good house price. However, data obtained from 2010-2013 were gathered from various online advertisement sources via property websites, eg. iproperty, propertguru, mudah.my, estate agents/property negotiators’ websites and other relevant property websites through Google Search (time-based). Meanwhile, for 2014 data, it was referred to transaction price obtained from the price index (clean data). The recent data shows that the average asking price for all areas except Subang Jaya are higher than the transacted price.

Table 3: The average asking price, 2010-2013 and transacted price, 2014

<table>
<thead>
<tr>
<th>Year</th>
<th>Tmn Melawati (RM)</th>
<th>Subang Jaya (RM)</th>
<th>Shah Alam (RM)</th>
<th>Bdr. Baru Bangi (RM)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>472,583.30</td>
<td>531,741.67</td>
<td>394,666.67</td>
<td>349,666.67</td>
</tr>
<tr>
<td>2011</td>
<td>899,416.70</td>
<td>592,833.33</td>
<td>566,500.00</td>
<td>442,416.67</td>
</tr>
<tr>
<td>2012</td>
<td>937,833.30</td>
<td>666,666.67</td>
<td>576,666.67</td>
<td>460,833.33</td>
</tr>
<tr>
<td>2013</td>
<td>1,281,833.30</td>
<td>726,666.67</td>
<td>607,666.67</td>
<td>565,916.67</td>
</tr>
<tr>
<td>Average</td>
<td>897,916.65</td>
<td>629,477.09</td>
<td>536,375.00</td>
<td>454,708.34</td>
</tr>
</tbody>
</table>

Average price change (%)

- Tmn Melawati: 42.8%
- Subang Jaya: 9.2%
- Shah Alam: 13.5%
- Bdr. Baru Bangi: 15.5%

2014 * (transacted price)

- Tmn Melawati: 626,000
- Subang Jaya: 713,000
- Shah Alam: 466,000
- Bdr. Baru Bangi: 440,000

Source: various sources from the property websites; * data obtained from house price index

4.3 Elements of Open Space

A total of 155 respondents (77.5%) believed that open space could increase the house price and most of them came from Taman Melawati and Bandar Baru Bangi. Literature informs that there are several elements of open space that affect its quality to be enjoyed by the users/community, covering both the planning aspect (e.g., size and location) and management aspect (e.g., maintenance and cleanliness). Respondents were asked about their perception of the importance of open spaces in relation to determine the offered house price within their residential areas. This research used Relative Importance Index (RII) as the technique to set the priority of the importance level of elements of open space from the perceptions of the house owners. The results shown in Table 4 indicate the level of importance of elements of open space perceived by the users/house owners. In the context of Malaysian urbanised areas, the results demonstrate that the key element of open space opted by community is the aspect of cleanliness whereby its RII is 0.894. The users are looking for a well-kept open space that is free of the following problems: broken playground equipment, animal waste, graffiti, messy with litter, cracked concrete, overfull rubbish bins, missing nets, and uneven playing surfaces. The other element that has a strong association with the element of cleanliness is the regular maintenance of the open space (RII is 0.882). Of the six pre-determined elements, the planning aspect, i.e., location and size were at the 4th and 5th place respectively. It seems that the respondents did not regard the planning aspect of open space as a key influential factor in determining house price. They put the emphasis on the management aspect of the provision of open space, i.e., they would like the areas to be kept clean with good maintenance and adequate facilities. Based on the perspective of the respondents, it seems that the provision of open space has conformed to the planning requirement, consequently they preferred to have good management of the open space for sustainable use of their family members. A study by Bedimo-Rung, Mowen and Cohen (2005) in the USA demonstrates the importance of the management aspect of open space is highly regarded by the users.

Table 4: Elements of open space desired by the respondents

<table>
<thead>
<tr>
<th>Elements of Open Space</th>
<th>FREQUENCY ANALYSIS (FA)</th>
<th>Relative Importance Index (RII)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management aspect:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Cleanliness is well kept</td>
<td>114 57 68 34 16 8 2 1 0 0 0 0.894</td>
<td></td>
</tr>
<tr>
<td>2. It has regular maintenance</td>
<td>100 50 84 42 14 7 2 1 0 0 0 0.882</td>
<td></td>
</tr>
<tr>
<td>3. The facilities provided are sufficient and suitable to the users</td>
<td>89 44.5 93 46.5 16 8 1 0.5 1 0.5 0.868</td>
<td></td>
</tr>
<tr>
<td>Planning aspect:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. The location is strategic</td>
<td>76 38 98 49 23 11.5 2 1 1 0.5 0.846</td>
<td></td>
</tr>
<tr>
<td>5. The size is adequate</td>
<td>67 33.5 103 51.5 25 12.5 3 1.5 2 1 0.830</td>
<td></td>
</tr>
<tr>
<td>6. The hierarchy fulfills the catchment area of users</td>
<td>55 27.5 84 42 53 26.5 5 2.5 3 1.5 0.783</td>
<td></td>
</tr>
</tbody>
</table>

Literatures on the studies on the relationship between open space and house price, there are many strong and valid evidence indicating the property enhancement value of open space in many places. In developed nations, their community considers high value on the existence of open space in which they regard it as an influential factor determining the enhancement of property value. The results of the study areas did not show the same pattern. Indeed, some local factors influence this kind of results, such as the level of appreciation of the open space as environmental goods are low, the cultural background and so forth. The relationship between the existence of open space in relation to the offered price was conducted using a Spearman correlation analysis. The results from the correlation analysis revealed (rs = 0.91, N = 200, p = 0.2) that is a weak relationship (rs < 0.1) between these two variables (Refer Table 5). The result suggests that there is a low concern within respondents on the existence of open space in term of deciding offered price if they plan to sell their houses.

Table 5: Correlations between existence of open space and offered house price

<table>
<thead>
<tr>
<th>Will the existence of open space increase the price of your house?</th>
<th>Correlation Coefficient</th>
<th>Sig. (2-tailed)</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>The offered price of house (if plan to sell)</td>
<td>1.000</td>
<td>.091</td>
<td>200</td>
</tr>
<tr>
<td>Will the existence of open space increase the price of your house?</td>
<td>.091</td>
<td>.199</td>
<td>200</td>
</tr>
</tbody>
</table>

5 CONCLUSION

In essence, this research has addressed the issue of how the provision of open space could affect the house price in selected townships located in Kuala Lumpur metropolitan areas, covering Taman Melawati, Subang Jaya, Bandar Baru Bangi and Shah Alam. Reviews on various related studies undertaken by many scholars worldwide stated that there a tendency of open space being a factor in determining house price. The result of this research demonstrates the same pattern, however the RII result informs that the relationship between open space and house price is rather weak and not significant. The relationship of elements of open space (i.e. the existence and location of open space) with the offered price, however, did not correspond with the previous feedback on the importance of having open space as it could increase the house price in their residential areas. Generally, the respondents agreed on the importance of open space as a factor that could increase the house price. But when they responded to the questions about specific elements of open space that contribute to the house price, they could not relate themselves directly and gave feedback that did not support their answer on the importance of the existence of open space in relation to a house price. It means that they could not see that specific elements of open space have potentials to give effect to the house price. It shows that they were thinking the importance of open space to the level of public at large rather than relate to themselves. In addition, they also perceived an open space as a package of environmental goods that encompass of certain collective of elements, but could not appreciate the value of each element that support the quality of open space. The analysis demonstrates that the respondents appreciate the management aspect of open space as it is about the quality of good open space, rather than the elements of location and existence (as parts of the planning aspect). They felt that the planning elements had been fulfilled when the residential areas were planned and then opened for sale. During the occupational stage, they were more concerned on the aspect of management of the open space as it relates to the continuity of the usage of the facility.

ACKNOWLEDGMENT

The researchers would like to express their thanks to the Institute of National Valuation (INSPEN) and Research Management Centre (SP13-054-0122) of International Islamic University Malaysia (IIUM). The opinions expressed herein are those of the researchers and do not necessarily reflect the views of the funder and the university.

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