The Effects Of Proximity To Cemetery On Purchasing Residential Properties In Malaysia

Tan Wee Vern, Aminah Binti Mohsin, Mohd Shahril bin Abd Rahman, Gabriel Ling Hoh Teck, Tan Liat Choon, Toh Ming Liang

Abstract: Ever-limited residential land has resulted in an increasing number of residential properties being built near cemeteries. Races and religious view cemeteries differently which affects their decision to purchase properties located nearby. Cemetery may impacted the surrounding include housing nearby either in positive or negative views. This paper explores Malaysian community perceptions of housing near cemeteries since Malaysia was a multicultural and multiracial country. The study adopts quantitative research and the data analysed using statistical analysis and Pearson Chi Square. The findings show that most of the respondents had positive views where about 197 or 52 per cents respondents with difference religious background agreed that cemetery is not a factor to be considered. Different religious did not show significance in affecting demand of housing as the p-value only 0.096. This supports residential development in such areas. Nevertheless, further study is required to identify additional factors that affect people’s perception of cemeteries.

Index Terms: Cemetery land, Public perception, Residential, Impact, Races, Religions, Positive and Negative.

1 INTRODUCTION

According to Maslow’s Theory, basic physiological needs are important to support human life. Housing is a basic human need besides clothing, food, water and air. Housing is a shelter that protects people from threats as well as an investment to gain profits. Several factors influence the selection of a home such as strategic location, good environment, accessibility, amenities, lifestyle, community, security and design. From these factors, the location is the most important factor in determining which house to purchase. In Malaysia, demand for housing is high, especially in urban areas. This is evidenced by the population rise living in urban areas from 25% in 1960 to 72% in 2010 (Rashidah et al., 2012) and to about 75 per cent in 2018 (Tey et al., 2019). The population of Malaysia increased more than three-fold to about 32.5 million in 2018 from 10.45 million in 1970 (Tey et al., 2019). According to the Statistics Department of Malaysia, the population of urban dwellers is set to increase to 77% by 2020. Since Malaysia reached upper-middle income status and now highly urbanized with depopulation of rural areas, this situation will reduce the amount of land available in cities with highly urbanized Malaysian population and increase house prices in the coming years. In Malaysia, some of the increasingly limited urban land needs to be gazetted for cemeteries. The cemetery is an increasingly important land use due to higher demand due to Malaysia’s growing population. According to the Malaysian Institute of Statistics, the Malaysian population increased to 32.2 million in the third quarter of 2017 while the death rate of Malaysians was 40,700. According to the Islamic and non-Islamic Cemetery Planning Guidelines (1999), a cemetery should be located in every neighbourhood, and a population of between 5,000 and 10,000 people requires a land of 1-2 hectare. Meanwhile, for big cities (more than 200,000 people), the cemetery requirement is 20 hectares. For example, in the Federal Territory, there are 46 Muslim cemeteries of which 21 are located in Kuala Lumpur. The total area of Islamic cemeteries is 74.23 hectares in Kuala Lumpur and is administered by the Federal Territory Islamic Religious Department (JAWI) and the Kuala Lumpur City Hall (DBKL) (Utusan Melayu, 2012). These statistics highlight that cemeteries are widespread in urban areas. This situation has caused housing developers and the government to construct residential areas near cemeteries. However, Malaysian do not generally want to live near a cemetery because they perceive it as a scary and unsafe place with many taboos (Firrdhaus, 2004). They prefer to look for a well-developed residential area located far away from the cemetery. Since the land scarcity for rapid development is a major problem in Malaysia (Tan, 2013), the decline of residents to stay at housing area near to cemetery will cause land scarcity is severe in Malaysia especially for urban area. Furthermore, the housing prices will be much higher for well-developed residential area since it is more interested by residents. There are several factors to be compared to cemetery view as amenities factors could affect housing demand, such as facilities, floor area, property aging and housing prices (Raymond, 2000). Meanwhile, housing affordability could also affect the housing price (Shazreen et al., 2019). Some previous study in Asian countries indicated negative outlook on cemetery land such as Raymond (2000) in Hong Kong, China and Chu et. al. (2012) in Chinese Taipei. Raymond (2000) describe a good social neighbourhood amenities are expected to provide positive attributes to property demand. However, the view of cemetery near to housing area is regarded as bad luck or negative neighbourhood attribute. The finding showed the housing area built near to the cemeteries mostly are public housing. Meanwhile, the study of Chu et. al. (2012) described that bad feng-shui for a dwelling unit to be in close proximity to cemeteries. The findings showed that the housing area near to cemeteries have less negative impact for more expensive housing units. Moreover, there will be less negative impact for housing near to cemeteries if the housing area near to downtown. However, for the Europe countries, different opinion to definite housing unit proximity to cemeteries. The study of Costantina et. al. (2013) indicated that there were no issues for cemeteries in creating problems although cemeteries will create conflict to the surroundings. As long as knowledge of interactions can be used by local authorities to understand urban conflicts, the cemeteries will not be a problem to the surroundings. Nevertheless, the cemetery is necessary for burying the dead (Larkin, 2011). In such a sense, cemeteries are an essential facility for the residents in the event of death (Costantina et al., 2013). In more recent times, though, taboos regarding cemeteries have relaxed, as marketing campaigns present the final resting place in a more palatable light. Different views of the cemetery raise the question as to whether the public is happy residing near cemeteries (Lee et al., 2008). Valuation of housing prices and parks shall be carried out to investigate the perception of
property buyers (Kim et. al., 2019). Cemeteries as a resting place and facilities shall be investigated the attribute towards the housing demands and prices in Malaysia. For Malaysia as a multiracial and multicultural country, the study could be carried out in determines the different racial with different perception towards the housing near to cemeteries. Therefore, this paper focuses on analysing the public views regarding demand for housing near the cemetery in the different background of races and religions in Malaysia. Objectives of the paper are to investigate the impact of cemeteries proximity to the housing area. The research significant for the property buyers and developers in terms of suitability to purchase or build housing proximity to the cemeteries.

2 COMMUNITIES’ OUTLOOK TOWARDS THE CEMETERY

Different religions and cultures view cemeteries differently. As a societal level, Muslims only visit their relative’s graves on certain annual celebrations, particularly Hari Raya Aidilfitri, whereas individual Muslims will visit the graves all year round. According to Islam, the main function of the cemetery is the placement of a dead body without the danger of public health and for those who want to remember the dead (Uslu et al., 2009). From the Western view, the cemetery is a physical space reserved for the memorial of the dead and their final ‘resting place’ (Larkin, 2011). According to Bennett & Davies (2015), a cemetery is a public facility that plays an important role in social infrastructure. It is a place to honour and remember the deceased and can be visited by family and friends. Francis (2003) stated that the cemetery is a symbol of a sacred and symbolic replica of the community that demonstrates its many religious beliefs and values. Western communities and authorities manage the cemetery’s physical space efficiently for optimal use. In Western societies, a cemetery or memorial park is a respectable place and can be used as a tourist destination. Chinese culture views the cemetery not just for people who die, but a physical environment encompassing the culture and traditions of society as well as their history. In Malaysia, Chinese rocks or cemeteries are an important reference for the history of its Chinese people (Fan et al., 2014). Teng Meng (1979) studied the relationship between the funeral with Fengshui. Many Chinese cemeteries show Fengshui features that affect their location and orientation. Fengshui is vital during the election of a grave site. According to the Fengshui concept, water is a symbol of wealth, and the mountain is a natural life. A place with good Fengshui is considered harmonious with nature. Unlike the Chinese community, most Hindus have no general perspective on burial grounds and prefer to have a cremation ceremony. The Hindu community does not consider any special physical factors for their burial grounds. From the explanation above, we conclude that the community has the same view of seeing the cemetery as a mortuary and sign for the dead. In addition, good management of the cemetery and its surroundings can render it a peaceful place suitable for tourism, rather than a scary and gloomy place. The outlook of communities is important as the effect on the housing demands and supplies. The satisfaction of communities towards housing proximity to cemeteries will increase the numbers of housing area proximity to cemeteries. Less impact in terms of economics and housing demands on nearby neighbourhoods if property buyers satisfy on the cemetery as a facilities and peaceful place.

3 IMPACTS OF CEMETERY LAND ON NEARBY HOUSING AREA NEIGHBOURHOODS

The cemetery’s surroundings may have a positive or negative impact on the nearby area. According to Constantina et al. (2013), the cemetery is potentially a recreational park useful for greener place that may have a positive impact on the environment and a place for remembering the deceased. In addition, there are emotionally positive views where those who live near the cemetery can think in a peaceful environment. (Constantina et al., 2013). Larkin (2011) also found that cemeteries did not lower the price of land nearby but could help increase value. This is due to the emphasis on the importance of burial grounds socially and culturally, coupled with its good care and management, which can contribute to the nearby community as well as good infrastructure. In addition, Basmajian and Coutts (2010) regard cemeteries as being a valuable historic and economic resource. According to Coutts et al. (2011), cemeteries do not have the potential to harm or adversely affect nearby housing and surrounding areas. This positive effect is also supported by the World Health Organisation (Ucisik & Rushbook, 1998) which mentioned that human corpses in cemeteries could cause groundwater pollution not due to any particular toxicity, but through increased organic and inorganic concentrations of naturally occurring organic matter which can make the land unusable. Constantina et al. (2013) mentioned that a cemetery should not be controversial spaces but a park or place for calm reflection. This perception and a cementery have a positive impact on housing. According to Chu et. al. (2012), the impact of the cemetery on the nearby housing area is negligible if the location of the housing is strategic. In addition, some people do not care that housing is located near a cemetery. Such people will buy housing near the cemetery if it is affordable or perhaps even cheaper than similar housing elsewhere. Nevertheless, some researchers believe that cemeteries have negative effects on the demand for housing (Raymond, 2000). Due to such negative views of the cemetery, they become desolate and gloomy places that are rarely visited (Firrhaus, 2004). According to Valerie Capels & Wayne Senville (2006), seeing graves and rituals related to death could cause nearby residents’ discomfort. This would directly reduce the demand for nearby housing. Raymond (2000) states that price for real estate especially housing near the cemetery is usually lower than in other areas. In many cases, burial grounds are broken into, vandalised, robbed, and polluted (Lehrer, 1974; Echeverria et al., 2008). Thieves broke into Kampung Bukit Balik Islamic Cemetery in Kerian, Perak and stole the iron fences in the cemetery. Consequently, animals such as cows and buffaloes enter the cemetery and destroy dozens of tombstones and grave structures (Sinar Harian Perak, 2012). Apart from that, surrounding communities dump rubbish in cemeteries and treat them as makeshift landfills causing it to breed bacterial infections as has been the case for the KL-Karak Islamic Cemetery Ground (Firrhaus, 2014). Also, Lehrer (1974) stated that cemeteries cause odours and pollutants to enter the air and water supplies endangering the public. If a burial ground contaminates the environment, then the human health of the nearby area will also be affected. An approach is to create basic design criteria for the placement and construction of new burial grounds. In addition, more thorough consideration should be given to finding the most suitable type of soil to bury bodied to minimise the impact on
the environment and public health World Health Organisation (Ucisik & Rushbook, 1998). From the negative side of emotion, the effect of ceremonial rituals such as fun-filled burial ceremonies will disturb the emotions of the people in the surrounding housing. The citizens nearby not familiar with taboos will easily be affected and disturb their daily lives. Uslu (2010) also stated that usage of cemetery land is problematic to be developed for other usages. Such negative impacts will reduce housing prices and property demand near the cemetery.

In short, the positive impact of a cemetery can cause housing demand to increase in the area, whereas the negative view of the cemetery will cause housing demand in the area to decline. Different socioeconomic and different demographic may gave different perception on cemeteries that near to housing areas. Although positive and negative perception will affect the housing demand directly, however impact of the cemetery land can be influenced based on the different social cultural and racial. Western countries and Asian countries outlook the cemeteries differently. Hence, it is important to view different racial outlook on the impacts of cemeteries in Malaysia. Thus, the hypothesis of this research is expected the different races and religion will affect their perception on housing area proximity to cemetery. Therefore, the dependent variable for this research will be housing supply and demand as well as public satisfaction for housing near to cemeteries and affected by the independent variable which is housing near to cemeteries attribute.

5 METHODOLOGY

5.1 Study Area
Since this research will be conducted in Malaysia due to the multiple races, therefore this study samples the northern part of Bandar Setia Alam at Precinct 17 shown in Figure 2. The area is close to the Meru Chinese cemetery. The developer, Bandar Setia Alam Sdn Bhd, has completed several types of properties such as apartments and shops in 2016. Two-storey terrace houses are being sold to the public and built near the cemetery. According to SP Setia Bhd.’s annual report (2017), an estimated 60,000 residents live in Bandar Setia Alam. The option of Bandar Setia Alam as the case study due to the sales of properties at Northern part in Bandar Setia Alam not so interested by property buyers compare to other places in Bandar Setia Alam. This might due to the northern part of Bandar Setia Alam near to the surrounding of cemeteries as shown in Figure 2 or the location not strategic. Therefore, a critical research could be carried out to determine whether cemeteries surrounding is the main effect to cause the low property sales in this area. Meanwhile, the population at Bandar Setia Alam was balanced between Malay and Chinese. Therefore, the biasness of result could be avoided which is suitable for this research.

This research comprises theoretical and empirical components. The theoretical study focused on the community perception towards cemeteries and residential areas. The theoretical data were obtained through secondary data such as books, articles, journals and online databases. Meanwhile, empirical data was collected through quantitative methods. The targeted respondents were the people living near the cemetery. The sampling method for the respondents was using simple random sample where the respondents were picked randomly. However, the number of respondents were according to the ratio of demographic in Bandar Setia Alam which is based on their races and religion. According to Krejcie & Morgan (1970), 60,000 respondents need a sample of 382 people. Therefore, all the residents in Bandar Setia Alam will be the targeted respondent until reach the number of 382 respondents. The data collection method was using the face-to-face interview, direct questionnaire and mail questionnaire. The method of collecting data was distributing questionnaires to respondents structured using a Likert scale (studying the level of agreement level 1 to 5). Closed-ended
questions where the option is available for the respondents to choose their background and yes or no questions. The Questionnaire survey questions were related to their perception and opinion on cemetery in affecting the housing area nearby. Meanwhile, the impacts of cemeteries were questioned in the questionnaire survey as well. The collected data were analysed using Statistical Package for Social Science (SPSS) in order to determine the frequency, mean score and index range. Reliability test and Cronbach’s Alpha (1951) were used to validate the findings. Descriptive statistical analysis is used to analyse the public response regarding the perception and demand for housing near the cemetery. SPSS were used to analyse the relationship between multiple racial and religion to the perception of housing area proximity to the cemetery land to answer the hypothesis of this research. Cross tabulation and Pearson Chi Square analysis by finding the p-value between these two variables was the method of this research.

6 RESULTS
To avoid bias, the respondents’ diversity is considered as shown in Figure 3. Malay and Chinese respondents were balanced with 165 Malay and 170 Chinese. Meanwhile, only 47 people are Indians as they are a minority in the study area.

![Fig. 3. Respondents’ Detail](image)

Next, we analyse the public perception of the cemetery. Figure 4 shows that the majority of respondents agreed with the highest mean score (3.92) that they are sensible about the importance of a cemetery in residential areas.

![Fig. 4. Mean Score for Perception of the Cemetery](image)

Apart from that, the majority of respondents agreed that cemeteries necessary facilities. They also stated that being located near a cemetery would not make the environment less attractive. Indeed, most respondents agreed that their religion and race were not obstacles to living near a cemetery. Nevertheless, even though the majority agreed that the cemetery was not a negative element, this does not mean that the cemetery has a positive impact on the environment. This is evidenced by the majority of respondents choosing the scale of 3 for the statement that the cemetery has a positive impact. Furthermore, they thought the cemetery is not a factor to be considered in buying a residential property. From this result, we conclude that the respondents tend to have more positive views about the cemetery.

### Table 1

<table>
<thead>
<tr>
<th>No</th>
<th>Statement</th>
<th>Frequency and Percentage</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Demand for housing would not be affected by proximity to cemetery land.</td>
<td>1 41</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.3 10.7</td>
<td>64.1 47.9 5.0</td>
</tr>
<tr>
<td>2</td>
<td>Demand for housing near to cemetery land is usually higher.</td>
<td>17 164</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4.5 42.9</td>
<td>29.0 21.0 0.8</td>
</tr>
<tr>
<td>3</td>
<td>Housing near cemetery land usually will have the same demand as housing far from cemetery land.</td>
<td>2 73</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.5 19.1</td>
<td>36.1 41.1 4.2</td>
</tr>
<tr>
<td>4</td>
<td>Most of the residents will choose to stay near cemetery land.</td>
<td>10 156</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.6 31.0</td>
<td>26.7 31.8 3.9</td>
</tr>
<tr>
<td>5</td>
<td>Most of the purchasers of housing will purchase housing near cemetery land.</td>
<td>8 130</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.1 34.0</td>
<td>28.3 31.7 2.9</td>
</tr>
<tr>
<td></td>
<td>Average Frequency</td>
<td>8 107</td>
<td>120</td>
</tr>
</tbody>
</table>

Table 1 shows a relatively balanced result between disagree and agree as, on average, 120 people average disagree and 135 agree. Hence, the cemetery is not a major factor in influencing demand because more respondents have positive views of the cemetery affecting housing demand near the cemetery. 47.9% agreed that housing surrounding cemetery land would not affect the demand for housing. Other than that, the majority agree that residents will choose to stay near cemetery land. The next analysis is to determine the impact of managed cemetery land and unmanaged cemetery land as shown in Figures 5 and 6.

![Fig. 5. Impact of the managed cemetery](image)

The results on the impact of the managed cemeteries showed that the managed cemetery land had more impact in terms of demand for housing (mean score 3.52), housing price (mean score 3.24), and demand of housing (mean score 3.41).
score 3.42) and economic (mean score 3.22). The respondents do not consider other aspects such as environmental (2.91), social (3.05), emotional (3.05) and health (2.81) as having an impact on housing demand with mean scores approaching 3. This data shows that managed cemetery land does not affect the surroundings.

The results of Pearson Chi Square analysis indicated that there are no significant relationships between different religion and races to the public satisfaction on the housing area near to cemeteries. As the p-value only 0.096, the different background of respondents for their religion and races do not affect their perception in purchase housing area near to cemeteries. Therefore, the hypothesis of this research that expected the different races and religion will affect their perception on housing area proximity to cemetery are incorrect from the Malaysian’s perceptions.

7 DISCUSSION
Based on Costantina (2013), more than half of the respondents are indifferent to live near a cemetery. However, this study’s finding on the positive outlook of cemetery proximity is not contradict to Raymond’s (2000) argument which found that people in Hong Kong did not like a view of the cemetery. Other Asian region which Chu et. al. (2012) described that bad feng-shui for a dwelling unit to be in close proximity to cemeteries in Chinese Taipei. In this study in Malaysia found that most respondents’ perceptions of housing located near a cemetery were positive. Furthermore, the respondents are of the view that the location is a major factor in influencing the demand for housing. Therefore, although public perceptions consider cemeteries as a negative attribute, however this study showed that the cemetery will not be affect if the location is strategic and near to downtown. Meanwhile, cemeteries will not be the main factor in affecting the housing area neighbourhood and in terms of demand and supply for Malaysia real estate. The majority of respondents disagree that efficiently managed cemeteries have negative affects on the surrounding area, especially in terms of the environmental, emotional, social and health impacts. In the case of unmanaged cemeteries, many respondents agree that they have negative impacts, particularly on the housing demand, prices and the economy. The results conclude that cemeteries are not a major factor in influencing public demand for nearby housing. Meanwhile, to evaluate the different demographics in affecting the housing demand and supply, second part of the discussion to determine whether different races and religion will affect the housing demand and supply that proximity to the cemeteries. Results showed that the was no any significant relationship for between different races and religion with perceptions towards cemeteries. Therefore, different demographic for races and religion will not affect their decision in purchasing housing area proximity to cemeteries.

8 CONCLUSION
The land scarcity in Malaysia promote the residential area built near to the cemeteries. Generally, it seems a problematic to the resident and property buyers as well as the property

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Table 2 shows the relationship between the religion of the respondents and their perception of whether to stay at housing near the cemetery. Christians and Muslims care less about living near cemeteries. While Taoists and Buddhists are more concerned. Nevertheless, overall, this study found that religion is not a factor affecting the decision to live near a cemetery. Studying the differences of religion concerning living near a cemetery helps identify the potential customers for nearby housing.

**TABLE 2**

<table>
<thead>
<tr>
<th>Statement</th>
<th>Religion</th>
<th>Scale</th>
<th>Total</th>
<th>Mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>I think that my religion and race are not important to living near cemeteries.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taoism</td>
<td>0</td>
<td>25</td>
<td>25</td>
<td>3.75</td>
</tr>
<tr>
<td>Buddhism</td>
<td>0</td>
<td>18</td>
<td>18</td>
<td>3.45</td>
</tr>
<tr>
<td>Hinduism</td>
<td>0</td>
<td>13</td>
<td>13</td>
<td>3.45</td>
</tr>
<tr>
<td>Islam</td>
<td>0</td>
<td>10</td>
<td>10</td>
<td>3.45</td>
</tr>
<tr>
<td>Christian</td>
<td>0</td>
<td>7</td>
<td>7</td>
<td>3.45</td>
</tr>
<tr>
<td>Total</td>
<td>0</td>
<td>45</td>
<td>45</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 3 shows the relationship between the religion of the respondents and their perception of whether to stay at housing near the cemetery. Christians and Muslims care less about living near cemeteries. While Taoists and Buddhists are more concerned. Nevertheless, overall, this study found that religion is not a factor affecting the decision to live near a cemetery. Studying the differences of religion concerning living near a cemetery helps identify the potential customers for nearby housing.

**TABLE 3**

<table>
<thead>
<tr>
<th>Variable</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dependent Variable</td>
<td>Housing demand and supply and Satisfaction of public</td>
</tr>
<tr>
<td>Independent Variable</td>
<td>Religion and races</td>
</tr>
</tbody>
</table>
development in terms of demand and supply for the property. Besides that, some issues may arise and impact to the neighbourhood in terms of economics, environmental, health, emotion and social. However, many respondents can accept housing near the cemetery. Even if cemeteries affect nearby housing negatively, it is not a major factor influencing housing demand. Unmanaged cemeteries have a greater negative impact, while managed cemeteries have a negligible and sometimes positive impact on housing demand. This study has limitations as it did not compare other factors that would affect the residential area in Malaysia. Future research could be carried out to determine the contrast of other factors with the demand for housing near cemeteries. In conclusion, this study can guide developers, buyers or investors, residents, governments or other stakeholders if they want to buy, stay or build houses near cemeteries.

9 ACKNOWLEDGMENT

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