



ENLIVENING THE MOSQUE AS A PUBLIC SPACE FOR SOCIAL SUSTAINABILITY OF TRADITIONAL MALAY SETTLEMENTS

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Abstract

Public spaces are vital elements of settlement fabrics that animate communities together in one place. Nevertheless, most public places are used for recreational purposes only without building on communal activities, especially in religious aspects. Therefore, to achieve robust social sustainability, this study aims to identify the key indicators for ensuring social sustainability of traditional settlements' public spaces. This study explores the typologies of public spaces found in traditional settlements that fill the needs of the local community. A mixed methodology was used to map and observe the public spaces and the communal activities held in two traditional Malay settlements in Kuala Terengganu. The bulk of the data were randomly collected from 400 residents by using a questionnaire survey to identify the most relevant factors that influence social sustainability. The results show that mosques have been listed as the highest preference of public space in the two sampled settlements. The study outlines three key qualities that lead the community to choose the mosque as the most important public space: 1) convenient access, 2) comfortable and clean, and 3) social aspects. This paper concludes on how these findings contribute to the improvement of quality of life, social interaction and social cohesion to achieve the Sustainable Development Goals (SDGs) globally.

Keywords: Mosque, Public Spaces, Third Place, Traditional Malay Settlement, Social Sustainability

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INTRODUCTION AND BACKGROUND OF RESEARCH

Traditional settlements are small-scale settlements with unique architectural features, different city forms and distinctive social and historical features, which vary according to local geographical conditions. Each of these elements has a specific physiognomy related to the uniqueness of their identity (Stefanou, 2000; Pozoukidou & Papageorgiou, 2013). The development and shape of such settlements are generally unplanned, spontaneous, and has an organic pattern (Setiawan, 2010; Ossen, Idid & Abidin, 2010).

Social sustainability can be broadly defined as the maintenance and enhancement of the well-being of present and future generations (Michael & Peacock, 2011). In the framework of the creation of a new community, the Youth Foundation defines social sustainability as “the process of creating a sustainable place and successfully promoting well-being by understanding what the community needs.” Social sustainability combines physical design with social design, for example, providing infrastructure to support social and cultural life, providing a community-based system, and providing space for people and space to evolve (Woodcraft, Hackett & Caistor-Arendar, 2011).

Conservation and development efforts that focused on the physical landscape, especially public spaces, aim to enhance social well-being that is eroding under the threat of various social factors and unplanned developments. In the pursuit of quality social sustainability, the understanding of social spaces has been given minor attention in the scope of the study. The public space plays a crucial concern in shaping the prosperity of life and promoting social participation. In the urban context, influential academician Gehl (1971) in his book entitled "Life Between Buildings" provides a systematic approach to researching public spaces to encourage social inclusion in the community while aiming for social sustainability among the urban population. The social activities are essential to the community as they provide opportunities for everyone to participate in social relationships, passively by either watching and listening to activities or interacting with residents and friends (Kavanagh, 2010; Bahadure & Kotharkar, 2012).

However, uncontrolled revamps and new developments in many traditional settlements throughout Malaysia are threatening the social sustainability of settlements. The need for social space is also being neglected by the planning and development of new residential areas today. Ghoomi et al. (2015) corroborated this issue by explaining how the development of a modern city has eroded the quality of social relations as well as changed the physical pattern of the residential environment and is reshaping how people interact with one another. Counting on the issues above; this study provides insights and suggestions on preserving the quality of the public space as one of the essential physical landscapes while enhancing social sustainability among those who inhabit traditional Malay settlements.

Religious Institution as a third places

The word “third place” can refer to unique communal spaces for social interaction, offering a setting for companionability, freedom, community assembly, and expression of feelings (Jeffres et al., 2009). According to Oldenburg’s theory (2001), the third place is a space other than houses and workplaces, where the public wants to gather and interact voluntarily and informally without rules. The home is known as the “first place” with a “domestic environment” for relaxation, but its maintenance involves work and cost. The workplace is the “second place” that produces something productive (Woldoff, Lozzi & Dilks, 2013). Meanwhile, the “third place” is built as a space that can improve the quality of life among the local community and foster social connection (Alidoust, Bosman & Holden, 2015). Hence, to fulfil the community needs and desire, community spaces with multipurpose function are required to ensure a harmonious communal living environment.

The idea of a religious institution as a social bonding platform started from the concept of the mosque as a communal mosque or *jamek* type mosque which is close to the concept of a ‘community mosque’. The idea of a community mosque grew since the early era of Islamic development, and the ‘Prophet’s Mosque’ is a noticeable case of the communal mosque in terms of sustainability and usage (Baharudin & Ismail, 2014; Omer, 2010). Hizan, Ismail & Ispawi (2017) also support that the mosque is the focal centre for Muslims to perform religious, political, social and educational activities under one roof. In designing a community mosque, among the criteria underlined by previous studies are spatial organisation and form such as the practice of native materials. This not only presents an original image but infuse the building with a local character that reacts to the culture, climate and environment (Hamid 2012). The mosque should be accessible and equipped with various entrances (Shojaee & Paezeh, 2015). The appropriate setting will offer a sense of welcoming to the visitor, make it easy to reach, and ensure a fully utilised mosque at all times (Najafi, 2013; Ghahramanpouri et al., 2015). Hence, a religious institution should be a public space that is accessible to all, used by all without exception, and should last for one generation.

METHODOLOGY

This study adopts a mixed-method design. The qualitative approach is divided into a literature review and observation. The literature review is conducted to analyse the content of selected articles from journals, books, book chapters, reports, newspaper clippings, and official government portals. The site inventory focused on Kampung Pulau Duyong (KPD) and Kampung Losong (KL). This settlement is known as a settlement that retains most of the physical characteristics of the traditional Malay settlement. Observations were made to ascertain the physical factors contributing to social sustainability such as comfort,

activities, accessibility, availability of space and public facilities. Information from observational methods will guide how the socio-cultural activities of the local community enhance social sustainability in the area. Observation checklists was provided to assist researchers in recording phenomena to be observed in the field. The reliability of observation is higher by using checklists than using rating techniques because it involves observer judgment. Prior to getting down to the field, reviews were made through the google maps app as a basic overview of driving and facilitating fieldwork. In addition, it is supported by reliable and valid photographic data. Meanwhile, the survey questionnaire is used as a quantitative approach. The study involved 400 respondents from the local population aged 18-65 years. Recent reports on the population of Kampung Losong and Kampung Pulau Duyong are about 5,000 residents in each settlement. Therefore, at least 370 respondents were required based on the population with 95% confidence level and 5% of the margin of error according to Krejcie and Morgan's scheduled summary (Vaus, 2002). The questionnaire uses a Likert scale to range the preferences of the local residents. Respondents were asked to consider the most relevant factors that influence social sustainability on a 5 point Likert scale ("1" = strongly disagree and "5" = strongly agree). Cluster sampling was applied for this study as a method for data collection where the participants of the population selected at random.

Study Area

Kampung Pulau Duyong and Kampung Losong are located in the district of Kuala Terengganu, Malaysia. The strategic location of Terengganu is located 500 km northeast of Kuala Lumpur and facing the South China Sea.



Figure 1: Map of the study area
Source: Author, 2019

Kampung Pulau Duyong is one of several islands in the Terengganu River. This settlement is well known for its cultural and historical heritage, especially for the traditional boat making that still operates today. The locals maintain the Malay culture and way of life, with over 40% of the population working as fishermen. Meanwhile, Kampung Losong has 11 sub-villages located near the Kuala Terengganu River. Historically, the villagers of Losong are well-known for their knowledge of the marine sciences brought by the Bugis community. At the same time, the local people of Kuala Terengganu are skilled in carpentry. They combine these skills to produce high-quality boats. The socio-economic activities of the villagers also include the production of *Songket* textile, small-scale businesses and fishing. KPD and KL were chosen as two traditional settlements with similarities in terms of Malay culture and heritage values.

RESULTS AND DISCUSSION

Figure 2 shows the demographic data from the survey questionnaire which consisted of 400 respondents (n). Two hundred respondents participated in the survey for each settlement. In this study, KPD had 123 male and 77 female respondents, while KL was slightly more balanced with 98 male and 102 female respondents. The majority of the respondents are aged 18-66 years old, with Malays constituting the dominant ethnicity.

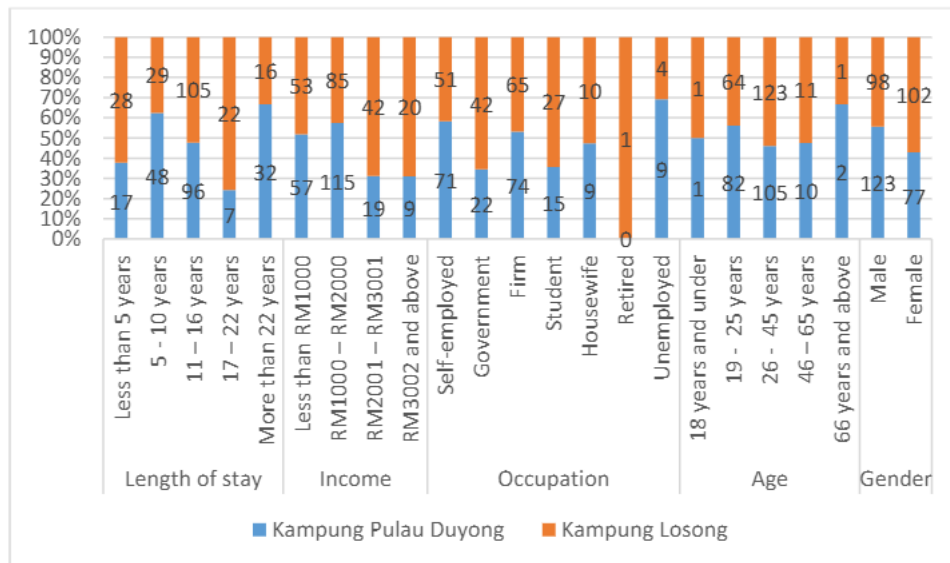


Figure 2: Demographics of respondents

Source: Author, 2019

The data presented in Table 1 indicates the choice of social spaces as the third space among KPD and KL respondents. The results show that the mosque is the highest choice for social interaction with a mean value of 4.52 for both settlements. Meanwhile, the areas with the lowest ratings were the fields (3.73), the jetty (3.36), the community hall (3.35), the civic hall (3.20) and the bridge (3.19).

Table 1: Typologies of the public spaces

Variables	Elements	KPD	KL	Mean value
		Average mean		
Place for social interaction	Mosque	4.74	4.31	4.52
	House	4.34	4.07	4.20
	Market	4.31	4.10	4.21
	Rivers and beaches	4.24	4.12	4.18
	<i>Wakaf</i>	4.12	4.01	4.06
	<i>Warung</i>	4.04	4.08	4.06
	Field	3.78	3.68	3.73
	Jetty	3.66	3.06	3.36
	Community hall	3.52	3.19	3.35
	The civic hall	3.27	3.12	3.20
The bridge	3.26	3.13	3.19	

Answer format: 1 = strongly disagree, 5 = strongly agree

Source: Author, 2019

As shown in Table 2, the mosque scores ranged according to its accessibility, comfort and cleanliness, frequency of activities, infrastructure and programmes. This suggests that residents identified sociability as one of the essential qualities that enhance the function of the mosque.

Table 2: Criteria mosque as public spaces

Variables	Elements	KPD	KL	Mean value
		Average mean		
Mosque	Accessibility	4.66	4.65	4.65
	Cleanliness and comfort	4.59	4.50	4.54
	Consistent programs and activities	4.56	4.48	4.52
	Ample sitting area	4.04	3.94	3.99
	Good learning centre	4.01	4.52	4.27
	Availability of recreational infrastructure	2.78	4.12	3.45

Answer format: 1 = strongly disagree, 5 = strongly agree

Hizan, Ismail & Ispawi (2017) supports that the mosque is the main centre for Muslims to carry out religious, political, social and educational

activities under one roof. It is considered a religious building where the Islamic civilisation was started. The role of the mosque is not only as a place of worship, but it has a multifaceted role in the spiritual, physical, and educational development of human beings and the community.

Good Accessibility for a Social Harmony

Accessibility refers to a person's ability to obtain the services, goods and activities they desire or the destination they want to reach. Among the factors contributing to the mosque's accessibility are proximity, convenience and social acceptability. The proxies include close travel distances, connecting roads and mixed-land use. Facilities such as a clear main entrance and directional signs also influence the villagers to gather at the mosque.

A safe road system will make it easier for people to move from one place to another. KL has a variety of alternatives to make it easier for people to move to the mosque, while the mosque in KPD is located near the residential area. The concept of centrality (Figure 3) found at KPD and KL places the mosque in the middle of the settlement to influence the number of people who visit the mosque easily with a minimum travel distance of about 10 meters. Thus, it is in line with the concept of sustainable settlement outlined by Shojaee & Paezesh (2015) & Dave (2011) that combined the use of land to reduce the travel distance from the city to home, workplace and social space.



Figure 3: The walking distance between the mosque and settlement in Kampung Pulau Duyong is about 500 metres

Source: Author, 2019

Besides, the welcoming sense of the main entrance design encouraged people to visit the mosque. The signboard is also considered a convenient promotional and wayfinding point for users. It provides clear directions about the

location and increases the legibility of recognising the street environment. In agreement with the previous study by Setiawan (2010) and Ossen, Idid & Abidin (2010), the settlement pattern influences the character of people's movement. The organic pattern of the roads creates a sense of leisure and promotes a relaxing mood for the users.

Clean and Comfortable Environment Shaping the Productive Personality

Comfort and quality of the environment are factors that influence the well-being of the community (Ghahramanpouri et al., 2015). In the context of the mosque, it is influenced by various factors such as air quality, natural ventilation, colour schemes, the comfort of sound from outside, the clear sound inside the building, community space, facilities provided and parking spaces. These factors can be categorised into visual comfort, ventilation and space comfort.

The pleasure of the view is the quality associated with the tranquillity of the environment experienced through the sight of rivers and natural planting. For KL, the mosque has the elements of a picturesque setting, which are the Masjid Makmur surrounded by dense canopy plants, while Surau Losong Panglima Perang is located along the river and presents remarkable views of the river and the Masjid Kristal. Meanwhile, in KPD, the natural scenery of sloping trees is visible from Surau Putih. From the architectural aspect of the mosque, the wide entrance plays a role in creating a sense of welcoming and providing a sense of tranquillity from the hustle and bustle of the outdoor space. Respondents recognised this element as reflecting the identity of the mosque and symbolising Islam. However, the decoration is not a key element in making the mosque the main focus of the visitors, but the spirituality that exists within each individual motivates them to worship, gather and support one another.



Figure 4: Tranquil environment can help people feel calm and relaxed
Source: Author, 2019

Furthermore, a good building is one that has a good ventilation system. Inadequate air ventilation systems can adversely affect psychological and physiological health. All mosques have natural ventilation systems such as sloping windows and wide entrances. They also work to provide openings for daylight. Proper airflow is required for each building to divert cold air into the building and push hot air up and out. The opening of windows on the roof of the

mosque plays a significant role in the process of air-clearing. This cross-ventilation design managed to reduce energy costs by 40% compared to fully air-conditioned buildings. Overall, mosques in KPD and KL have ample window openings but differ in design.

Furthermore, the space comfort of the building also influenced the frequency of respondents to gather in mosques and *suraus*, as the area became wider, easier and more comfortable to accommodate large-scale religious and social activities. The main prayer hall is the essential requirement symbolising a sacred area where the residents will perform the congregational prayers such as the five daily prayers, the Eid prayers or the Friday prayer. Next, the porch is an extension of the basic shape of the building. In the context of the Malaysian climate, the porch is one of the crucial components of the building design as it acts as a transitional space between public and prayer spaces. It serves as a place for informal religious discussions, meeting place, waiting and relaxation area as well as an additional prayer area if needed. The comfort of the exterior includes the spacious surroundings of the mosque. Open spaces could be used for parking, ceremonies and *qurban* activities during the Eid Al-Adha festival. Overall, the layout of the mosque is fully well-designed to fulfil the basics of the users. The external spaces provided, e.g. the hallway, corridor and veranda, may also be used as a multifunctional space to maximise the mosque usage instead of solely serving as the air circulation space. Besides, the arrangement of interior and exterior spaces is well integrated with the existing landscape setting.

Moreover, sustainable practices are applied at KPD's mosque by using an automatic 'plug' innovation to toilet lamps. This practice is seen as a wise step in reducing electricity consumption. Further, reminder labels are placed next to the electric switches and water taps to remind users of sustainability practices.



Figure 5: Spaces of mosques

Source: Author, 2019

Enhancement of Good Values through Programs and Communal Activities

The mosque serves as a centre of human focus that embodies the characteristics of the Muslim community. Among the purposes of the mosque are as a place of worship, the centre of knowledge and the centre of government and politics. Among the activities held are congregational prayers, morning and evening

discourses, Quranic readings, weddings, funeral management workshops, *qurban* activities, study programmes, talks in conjunction with the celebration of the Prophet’s birthday and special discussions during the month of Ramadan.

Studies have found that social and religious activities are an essential factor in attracting people to enlivening the mosque. The activities create a sense of belonging to a place rather than relying solely on the physical design elements. Having said that, the physical spaces should be able to accommodate the activities. The results showed that 50% of the mosques in KL and KPD had a spacious yard to accommodate the needs of large-scale programmes.

Furthermore, the frequency of social activities in mosques and *suraus* was identified through the surveys. Most respondents in both settlements were involved every few months, with the percentage of respondents being 61% in KPD and 57% in KL. This is followed by “once a month” (17% in KPD and 21.5% in KL), and weekly (KPD 16% and KL 12%). Some individuals never participated in any mosque programme with the lowest percentage of 6% (KPD) and 9.5% (KL). This is due to time and mobility constraints due to age and health factors.

Table 3: Frequency of community involvement in mosques activities

Elements	KPD	KL	KPD	KL	KPD	KL
	Frequency		Percentage		N=200	N=200
Every week	32	24	16%	12%	200	200
Once a month	34	43	17%	21.5%		
Every few months	122	114	61%	57%		
Never	12	19	6%	9.5%		

Source: Author, 2019

Furthermore, the co-operation nature of the programmes also promotes the social sustainability of the mosques. In optimising the function of the mosque as a centre for social interaction, the collaboration between various organisations creates a good relationship between members of society. This finding is in line with the previous studies by Baharudin & Ismail (2014) which stated that the mosque is the node that becomes the prominent space for community socialising.

Hence, through observations, the mosques in KPD and KL have been seen to organise many programmes such as funeral management workshops, children camps and so on in collaboration with the Village Community Management Council and the Terengganu Islamic Religious Department. Such efforts coincide with the characteristics of a third place as a social space that serves as a focal point for people to create conversations in all areas of society including social interactions with outsiders and neighbours, and the opportunity to participate regardless of background (Omer, 2010; Oldenburg, 2001).

Finally, to ensure that mosques remain as a social space, the parties involved must provide a variety of activities, provide adequate spaces and

facilities and build a sense of community. The addition of open spaces around the mosque can also informally support social sustainability with the presence of social interaction among children who use the green space as a playground. In conclusion, a mosque should be multi-functional and be welcoming. Moreover, to meet the needs of today's community in keeping the mosque relevant, the mosque can also serve as a technology centre, leisure centre, healthcare centre, and the interpretive community centre.

CONCLUSION

In conclusion, it is suggested that religious institution should be planned according to sustainable factors in terms of form, spaces or activities. In representing the sustainable mosque, the mosque structure ought to have façades or walls that permit lighting and ventilation into the building to limit the use of energy and decrease cost for mechanical support. The location of the mosque should also be in harmony with the living landscape and within accessible walking distance. The mosque should also have a multifunctional space that can be wholly used. A great mosque functions as a focal point of human activity that successfully engages conversations in all social contexts, including social interactions with strangers, and where opportunities for participation are natural and available to all. The good public space is open for most of the day, without discrimination for new or permanent visitors; everyone is welcome to come together regardless of status and position. Mosque design gives a significant impact on enriching the quality of life. For the reason that the religious institution is faithfully related to the presence of a Muslim believer, natural surroundings are also the crucial factor that can bring humankind closer to their Creator. Thus, the mosque spatial organisation, accessibility and activities are among the factors that can lead to a better quality of life.

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