PLACE ATTACHMENT TO WATERFRONT REVITALISATION DEVELOPMENT: CASE STUDY OF LUMUT AND KUCHING, MALAYSIA

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ABSTRACT

Urban development in Malaysia is inseparable from its existence, which began on the river banks. The design of river banks often changes with time and the level of urbanization. As a result, the physical environment of the river bank will indirectly affect the identity of the place. In fact, the revitalization that has been done able to establish the identity of the area. Relationship functional and emotional elements between human and place create meaning, this process is known as place attachment. Physical changes that occur results in a change of meaning and place attachment may decrease gradually. In the context of urban design, some discussions led to the physical element of interest and activity to develop place identity and atmosphere, but a study of open space areas have received less attention. The aim of this study is to verify the ability of place attachment and the factors that influence user's perception in the context of open space on the waterfronts in Malaysia. Furthermore, to find out the cause (causal) between the places attachments, meaning the place and the characteristics that influence the level of public engagement. The objectives identified in this study are; (i) to determine the form of emotional and functional attachment of open space or place in the development of the waterfront; (ii) to identify the reasons that affect the place attachment especially on the meaning and importance of the place; (iii) to identify the level of place attachment with the user's roles in the open spaces and; (iv) to identify the characteristics of open space along the waterfront, which influences by user's engagement. A mixture of qualitative and quantitative approach are used in this research and covers two main areas of urban design and environmental psychology. Surveys and in-depth interviews conducted with users of selected two study areas, namely Kuching Waterfront (KW) in Sarawak and Lumut Waterfront (LW) in Perak. Observation's also been used to obtain the physical and visual characteristics. The results showed that the place attachment is influencing users perception of public space at the river bank.

Besides its physical quality, the place is also known for attachment and its significance to the user. Results from the study show several factors that influence the form and the level of engagement of the attachment, user familiarity with the place, place dependency, user background, and role. Therefore, this study contributes to human relationship with the place and give importance implications to urban planners, urban designers, and architects to create a better and well-organized place.

ABSTRAK

Pembangunan bandar di Malaysia tidak terlepas daripada sejarah kewujudan yang bermula di tebing-tebing sungai. Reka bentuk tebing sungai sering kali berubah mengikut zaman dan tahap urbanisasi. Akibatnya, persekitaran fizikal tebing sungai secara tidak langsung akan mempengaruhi identiti tempat. Malah, revitalisasi yang dilakukan kadangkala mampu membentuk satu kawasan yang beridentiti. Unsur-unsur hubungan fungsi dan emosi antara manusia dengan tempat akan mewujudkan makna tempat, proses ini dikenali sebagai keterikatan tempat. Perubahan fizikal yang berlaku akan mengakibatkan makna tempat berlaku perubahan dan keterikatan tempat akan berkurangan secara perlahan. Dalam konteks reka bentuk bandar, terdapat beberapa pendapat yang menjurus kepada kepentingan unsur fizikal dan aktiviti dalam membina identiti dan suasana, namun kajian terhadap ruang terbuka awam kurang mendapat perhatian. Tujuan kajian ini adalah untuk mengesahkan keupayaan keterikatan tempat dan faktor-faktor yang mempengaruhi persepsi pengguna dalam konteks ruang terbuka tebing sungai di Malaysia. Kemudian, untuk mengetahui punca (sebab dan akibat) antara keterikatan tempat, makna tempat dan karakter yang mempengaruhi tahap penglibatan awam. Objektif yang dikenal pasti untuk kajian ini adalah; (i) untuk menentukan bentuk hubungan emosi dan fungsi ruang terbuka atau tempat dalam pembangunan tebing sungai; (ii) untuk mengenal pasti sebab-sebab yang memberi kesan kepada keterikatan tempat terutamanya pada makna dan kepentingan tempat itu; (iii) untuk mengenal pasti tahap keterikatan tempat dengan peranan pengguna dalam ruang yang terbuka dan; (iv) untuk mengenal pasti ciri-ciri kawasan lapang di sepanjang tebing sungai, yang mempengaruhi penglibatan pengguna. Pendekatan campuran kualitatif dan kuantitatif akan digunakan dalam penyelidikan ini dan merangkumi dua bidang utama iaitu reka bentuk bandar dan psikologi persekitaran. Kaji selidik dan temu bual secara langsung telah dijalankan terhadap pengguna dari dua kawasan kajian

terpilih iaitu Kuching Waterfront (KW) di Sarawak dan Lumut Waterfront (LW) di Perak. Pengamatan kawasan juga dijalankan bagi memperolehi ciri fizikal dan visual. Hasil kajian menunjukkan bahawa keterikatan tempat mempengaruhi persepsi pengguna terhadap ruang awam tebing sungai. Bukan sahaja melihat daripada kualiti fizikal, malah tempat itu juga dikenali melalui keterikatan dan maknanya kepada pengguna. Hasil daripada kajian menunjukkan beberapa faktor yang mempengaruhi bentuk dan tahap keterikatan iaitu tempoh penglibatan, keakraban pengguna terhadap tempat, pergantungan kepada tempat, peranan dan latar belakang pengguna. Kajian ini memberi sumbangan kepada hubungan manusia dengan tempat dan memberi gambaran penting kepada perancang bandar, pereka bentuk bandar dan arkitek dalam menghasilkan tempat yang lebih baik dan terancang.

ACKNOWLEDGEMENT

TABLE OF CONTENTS

CHAPTER 3: CHARACTERISTICS OF WATERFRONT IN MALAYSIA

CHAPTER 4: RESEARCH METHODOLOGY

CHAPTER 7: DISCUSSION AND CONCLUSION

LIST OF FIGURES

LIST OF TABLES

LIST OF ABBREVIATIONS

DBKU	*Dewan Bandaraya Kuching Utara* / North Kuching City Hall
DoE	Department of Environment
D.Y.T.M	*Duli Yang Teramat Mulia* / The Dust under the Feet of his Exalted Highness
FELDA	Federal Land Development Authority
IWH	Iskandar Waterfront Holdings
JPBD	*Jabatan Perancangan Bandar dan Desa* / Department of City and Rural Planning
JPS	*Jabatan Pengaliran dan Saliran /* Department of Irrigation and Drainage
KICC	Kinabalu International Convention Centre
KK	Kota Kinabalu
KKCW	Kota Kinabalu City Waterfront
KW	Kuching Waterfront
LKIM	*Lembaga Kemajuan Ikan Malaysia* / Malaysian Fisheries Development Authority
LW	Lumut Waterfront
MBMB	*Majlis Bandaraya Melaka Bersejarah* / Malacca Historical City Council
MPM	*Majlis Perbandaran Manjung* / Manjung Municipal Council
NGO	Non-Government Organization
NOAA	National Oceanic and Atmospheric Administration
OCZM	Office of Coastal Zone Management
OKU	Orang Kelainan Upaya / People with disabilities
SDC	Sabah Development Corridor
SEDC	Sarawak Economic Development Corporation
SPSS	Statistical Package for the Social Sciences
TLDM	*Tentera Laut Diraja Malaysia* / Royal Malaysian Navy

CHAPTER 1: INTRODUCTION

1.1   Research Background

A place cannot be understood without taking into account of three components of the site related to the characteristics, physical, activity, function, meaning, and symbol (Relph, 1976). While Canter (1977) argues nearly the same that a place is a combination of three aspects of the activities that are in it, the concept of the place and the physical environment. Therefore, these facts explain that somewhere consisting of physical activity and meaning. Referring to this, the research presented to determine the place attachment that exists on the waterfronts in Malaysia. Attachment in this study means that the effectiveness of physical contact with the function or the relationship between users with a particular place. Waterfronts that studied are (1) the Kuching Waterfronts; an open space corridor along the Sarawak River in Kuching, Sarawak; (2) an open space along the river corridor in Bandar Lumut, Perak. This study focuses on the role of the waterfronts as public places become one of the elements of the city. At the same time, this study is to identify the forms and relationships that contribute to the formation of the image that has been in place revitalization, which led to the image of the city in the context of urban design. Also, this study identifies places of interest to users, the factors and characteristics that affect the place attachments. Other than that, the researcher describes the context of the scholar regarding open space, where the attachment element, revitalization, waterfront and design elements such as the image of the city briefly.

Open space in urban areas and the relationship between humans and the environment has been around since the 1900s (Jellicoe and Jellicoe, 1975). Some researchers in this field try to explain some aspects of the human relationship with the environment or public. For example, Altman & Low, (1992), in the study of attachment to place, examine the various aspects of cognitive, affective and conative, the place origin (Tuan, 1977), the dependence of the place (Stokols and Shumaker, 1981), identity of the place (Proshansky, Fabian & Kaminoff, 1983) is among scientists who are often associated with environmental psychology literature. A healthy relationship that exists between emotional excitement (affective) and functions or relationships between people with some locations can develop a sense of place, a process known as place attachment.

Other than that, revitalization is one of the approaches used to revive an area or a town that has previously lived for a time but later has gone into regression. The revitalization involves efforts of physical beauty orientation that complemented with economic improvement of the society and their cultural identity. Hence, the process of revitalization of an area accounts for various aspects of physical, economic, social and cultural that makes the revitalization a bit difference from the conservation concept (Hoyle, 2001). The conservation concept consists of a process of caring, giving treatment, making an effort to preserve the heritage including restoring the area (restoration) and adopting an approach to revitalizing; for the historical or cultural life to be better and have a new look without changing the identity or history of the area. (Siti Norlizaiha Harun, 2004; Hoyle, 2001). However, as Rodwell (2008) pertinently indicates much of the particular character of waterfronts involves more than cultural protection. Under the conservation concept, the revitalization concerned with visual improvement and reconstruction of the city image (McCarthy, 1998). The revitalization approach helps to identify and harness the potential of environmental resources, such as

2

history, meaning, and uniqueness of location and image of the place (Judd, et al., 1999). It is not just a physical improvement or to have tapped portions of the city but more importantly, revitalization is concerned with a continuous program from the early stages up to a long-term program that involving management of the area.

In term of urban design elements, it only focuses on the physical consideration; whereas non-physical factors are also important in urban design to create a place with distinct identity and beauty. Based on Parfect and Power (1997), in Chapman and Larkham, (1999), urban design elements can create poor quality, damage or high quality in urban areas. Hence, urban design tends to underline the visual aesthetics, physical and attributes of streets and building as symbolic that create the form and influence the quality of life in cities without referring to environmental, social, economic and political consideration (Madanipour, 1996, 1997; Schurch, 1999 in Kashef, 2008). According to Handy et al. (2002), 'urban design' usually refers to the layout of the city and the physical elements within in while Spreiregen (1965) indicates the proper application of urban design elements may be thought of as principles. This means that urban design principles may apply to urban physical elements.

In term of the image, refers to a picture or an idea which derived from observation of individuals or the public. With the same notion, the town image may constitute things which can be seen, heard and which are appreciable or something which becomes the city's primary activity or attraction (Lynch, 1960). The image of a city crafted through designing the city with proper town elements that constituted by building, road, street furniture, and landscaping (Lynch, 1960). These elements are more conspicuous and tend to be precious to the society, for example, the architectural work in historical buildings in Malacca that is not only portraying Melaka as an ancient city but has also

3

been able to retain the historical identity of the town and the state as a whole. With this respect, it is significant that the structure and design of buildings, roads and landscape furniture's must be taken into serious consideration to repair from time to time to retain the image of the city. However, Short (1996) indicates that the definition excludes city fully visible such as building, roads, pedestrian space and physical elements. Based on Short perspective, the whole town is a symbol of life in it. In his book 'The Urban Order,' he mentioned that:

"The city is more than just a physical entity, more than a place where people live and work. A city is a place symbolic of many things, representative of many things. The city is a work of imagination, a metaphor, a symbol". (Short, 1996; 414)

He also mentioned;

"Cities compete for business, trade, and investment. They struggle for corporate attention. What sells the city is the image of the city. In a real sense, the city becomes the image... Four main images can be identified; fun city, green city, culture city, pluralist city". (Short, 1996; 431)

Another opinion on the image of the city comes from Pike in his text 'The City as Image' (1996). According to Pike, the image of the city is not the building but the peoples. Cities and communities cannot be separated. Image of the city means that image of the community; he also said that:

"City is, by any definition, a social image. Throughout history, and literary history, it has chiefly represented the idea of community, whatever values might be attached to it in any particular context. For religion, philosophy and literature from time to time of the Greeks and the Old Testament, the image of the city was the image of a community, whether positive or negative". (LeGates and Stout, 1996; 243)

Undoubtedly, the city image that created through urban design process was influenced by two primary professional players in the development control process that were between town planner and architect. Their concerns on space creation extended to developers and local communities to their values of the development in question. The final design would have compromised on economic needs and environmental qualities due to economic, political, social and aesthetic values considerations during the development approval process (Madanipour, 2006; Hagerman, 2007). Consequently, the environment produced would be far away from the sustainable environment as what was aimed.

The initial hypothesis of the researcher argues that as a result of physical changes that are not right, they can modify the meaning of place and attachment to the place slowly decreases. The place-based concept will be used where this principle is concerned with the physical elements and activities along with the meaning of which is owned by the user that will shape the city's identity and place. This study focuses on the dimension of attachment regarding the place and psychological aspects related to the physical component. Also, this study will identify the form and level of commitments and the importance of the place to users and features that affect the bond. It is to ensure that the characteristics of the locality somewhere in the city as the place (place character) and meaningful to the user can be identified.

1.2   Research Gap

When attempting to close the gap between two issues, it means that building an efforts to span the differences or spaces between the issues, to solve any problem produced or to minimize as much as possible the differences between things to be closer. According to Uyangoda (2011), propose puzzling is useful to build your research problem; which

is formulating a research problem by forming a research gap. A research gap is the missing elements in the existing research literature. It indicates a finding from research in which a fundamental question has not been answered. When researcher drafts a research proposal, it is indispensable to read literature. Eventually, some areas have examined numerously, and some areas do lack in research. Those provide an intention to the researcher to formulate their research gap and research problem (Dissanayake, 2013).

According to the research by Hoyle (2001), he debates theoretical issues raised and reports on the experience of Lamu, Kenya; an East African port city where urban conservation including waterfront revitalization is making progress with the support of local, national and international organizations. As a historic port city experiencing continuing urban waterfront redevelopment, Lamu contributes a component to the global mosaic and helps to place all other port-cities in perspective (Hoyle, 2001). Hoyle also stated some remarkable buildings at Lamu had sensitively rehabilitated, but many others are still at considerable risk. The revitalization of urban heritage is invariably sensitive and controversial, and urban waterfront is a fundamental element in this wider framework. Finally, he stated that success requires an appropriate balance between external and local support, between the demands of modern society and respect for traditional cultures, and widespread appreciation not only of short term gains but also of the long run value of action while there is yet time.

Next, according to writing by Gospodini (2001), the research examines urban waterfront redevelopment in Greek cities, regarding them as a group of cities rather than focusing on each case independently. The research attempt to set up a theoretical framework for redesign of space based on three considerations; (1) the development prospects of Greek

cities and especially smaller Greek cities within the European urban system, (2) the potential of urban design as a means of economic development of cities and the ways such a use of urban design may be adopted by Greek cities in urban waterfront redevelopment and, (3) the main morphological and spatial characteristics exhibited in common by Greek cities and their waterfronts. In this paper, it argues that in the competitive European urban system, urban waterfront redevelopment is a challenge for Greek cities – (1) 'change' of the established urban design practices from episodic and soft interventions towards large scaled interventions and avant-garde design of space, (2) 'improvement' of the quality of space in the core of Greek cities, and (3) 'development' of urban tourism by placing Greek cities on the urban map of Europe as a distinct group of cities with characteristic waterfronts.

In the research "Waterfront designs without a policy? The actual uses of Manila Baywalk" by Gomez (2008), the study describe and record for posterity the real methods of the Baywalk at the height of its revival, before mid-year 2007 municipal elections. The study also aimed to survey actual usage of the Baywalk as a future basis for site-specific policy formulation and concentrated on recording and understanding behavior and interactions between people and physical elements of this "rebuilt-environment." The results of the study revealed a mix intended and unintended uses linked to design of the area, in the absence of an overarching planning framework that might have otherwise controlled it's now vigorous albeit weakly-regulated commercial activity.

Another study related done by Krausse (1995), in his study "Tourism and waterfront renewal: assessing residential perception in Newport, Rhode Island, USA," the study is to examine the perception of Harbor residents on tourism and waterfront

redevelopments in Newport, Rhode Island. The study was conducted using a sample of waterfront residents in Newport, Rhode Island, in 1992; about 160 surveys were carried out of households located directly in the tourism district. The results indicate that by and large, the waterfront community perceives the current traffic conditions, inadequate parking, lack of privacy and commercial intrusion into neighborhoods to be the consequences of increased tourism. The participants are urged to address the community's social carrying capacity to make the needs of residents more compatible with development objectives designed for the visitor.

According to Hagerman (2007), in his research critically examines the planning and redevelopment of historic industrial waterfront adjacent to downtown Portland, Oregon. The planning for livability in Portland has sought to capitalize on and reinforce particular forms of nature, linked to specific types of commercial urban revitalization and reflecting desires for post-industrial knowledge-based economic development amid the uncertainties of deindustrialization and globalization. Hagerman also stated that urban political ecology maintains that the remaking of natural landscapes must consider along with the social and economic effects of the replacement of industrial landscapes with aspects of consumption. The sites on historic waterfront allow the opportunity to directly assess the intersection between redevelopment, planning, the broad sweep of industrialization, decline and post-industrial economic development and social transformations. The Portland model may be a leading example of progressive land use, transit and environmental and participatory planning, unpacking taken for granted conceptions such as livability remains vital to a critical analysis of the outcomes of planning and redevelopment processes as other cities look to the Portland model for best practices or actors within the city reflect on successes and failures.

Based on Wakefield (2007) paper, it examines waterfront revitalization in Hamilton, Ontario, Canada. This article uses newspapers and municipal documents to track the development of the Trail, from the initial planning of the Trail until the present day. The waterfront development was shaped by specific environmental conditions as well by existing networks between institutions. At the city level, Hamilton's legacy of environmental contamination as a result of the city's industrial heritage focused efforts on the need for environmental improvements as part of waterfront redevelopment strategy; at the site level, specific biophysical conditions have constrained the choices that can be made by local actors. The prior involvement of many local stakeholders in the development of the Remedial Action Plan through the Bay Area Restoration Council has given a particular shape and focus to the subsequent waterfront planning. Wakefield also stated that by an understanding of the local and extra-local factors that shape waterfront development and begins to elucidate how the local and extra-local connected through a network of actors, patterns of economic investment and decline, and perhaps most importantly by globalized growth discourses that are re-interpreted at the local level.

According to Hazreena Hussein (2006), her research identifies characteristics which are the Theme, Identity, Functions and Authenticity of some current riverfront development, mainly focusing in urban areas. In her study, it began with the evolution of an urban riverfront, including understanding how early settlements were established along the river, then forming the town, leading to the present day cities and their inherent traditional urban culture value. The case studies selected were from South East Asia within Singapore and Sarawak, Malaysia. All the examples will then be compared with London and Boston, USA. Several methods are being employed in meeting these objectives. Data and evidence collected by the use of two methods that are the literature

surveys and questionnaires. Finally, the conclusion systematically analyzed on design elements and careful considerations through design planning and sensitive approaches.

Meanwhile, based on Azlina Yassin et al. (2010), the paper is to aims and identifies a transition from waterfront development in Malaysia from history time to modernization era, and it would give a significance contribution to the research. Azlina Yassin et al. (2010), indicates that the last two decades shown Malaysia has shifted development strategy from agriculturally based to industrialization and manufacturing industries have become the economy's primary source for the country until now. This transformation in the 18ᵗʰ century shows that rapid urbanization, industrial and intensive agricultural activities, have contributed to extensive changing of river function for the economy, national development, and environment. Azlina Yassin et al. (2010), also stated that waterfront development in Malaysia had undergone cycles of change over the decades and the latest in this pattern to more public purposes such as recreational and mixed used development.

Another research by Ahmed Raad Al-Shams et al. (2013), he stated waterfronts development have undergone various stages of development initiatives and become the most challenging tasks for planners and urban designers nowadays. The paper attempts to understand the evolution of waterfront development within the framework of urban design and public spaces has been practiced by Singapore and Turkey and provided a lesson to be learned by taking Johor Bharu as a case. He also stated that the urban studies on the waterfront would be an essential framework for cities development. The smart partnership between local government and private should be more emphasized to achieve the world class urban and cities development (Ahmed Raad Al-Shams et al., 2013).

The place attachment is often explored in the field of environmental psychology and understood as a field of study in the discipline of urban design. For example, studies Lynch (1960), about the image of the city focused on visual cognition, and environment attributes have proven the importance of the space environment and assign meaning are interrelated. Other sensory experiences and meanings of place also appear in the writings of the social dimension of exploration and perception of performance designs (Banerjee & Southworth, 2002; Carmona, Heath, Oc & Tiesdell, 2003; Tibbalds, 2003). Some opinions have confirmed that the physical environment has a profound effect on human behavior. There is a view to informing that environmental influences on the human action will change when the situation is changing and will change behavior (Low, Taplin & Schelde, 2006).

In the local context, the study of attachment to the place and meaning of the place has been done by Shuhana & Ahmad Basri (1998). Their study unravels public perception of identity Kuantan town located on the east coast of Malaysia. The results of their study showed that the perception of the population regarding the identity of the place is more robust to the city with a backdrop of the old town. This research shows the total number of elements that are considered unique by the population is located in the old city center compared to the new. A similar research carried out in the southern and northern Peninsular Malaysia, and the result is the same. The study ultimately produces some guidelines for preserving the city's heritage through the development of a sense of place and how it can lead to a better quality of life. Nevertheless, the findings are not sufficient to generate a sense of attachment and strengthen every means at each venue. Then, there is some effort made to fill the space of this theory in cognition research environments such as those run by Nursidah (2007) on the streets of the commercial hub of the city center of Kuala Lumpur. The study was developed in the framework of

attachment theory in place relating to the type of roads and the establishment of the city as background.

From the studies that have been done, it can be said that the various theories and frameworks have been developed to derive how one place and revitalization can give meaning. A study from Low, Taplin & Schelde, (2006), revealed the discovery of modifications and changes made to the urban park in five major cities in the United States. Their attention was focused on cultural diversity and open to the dimension of identity or a combination of structural elements of the place. Manzo (2009) stated that the power and importance of the concept of sense (sense of belonging), protection and comfort tend to focus on the positive affective attachment to place, especially in connection with their residential setting. However, there still a lot of studies need to explore on how and experience negative feelings to affect the meaning of the place. Lynch (1960) admits that represent a significant meaning in place, despite in his study only focused on the identity and the primary structure of the variables of the discussions in the formation of the image. Studies such as the characteristics of the local environment of the city (Green, 1999), Squares as a place to enjoy a strong sense of community and cityscape (Childs, 2004) and the public space and the city (Madanipour, 2003) mostly concentrated outside the context of Malaysia.

Habitually interdisciplinary nature of urban design and environmental psychology has many beneficial in providing a different approach with this title, but cross-references and cooperation in the planning and development decisions are hampered by the lack of local literature. Therefore, this research was carried out to extend the knowledge about the human relationship with the public spaces (waterfront) and unlocking features that can evoke meaning in the context of local places in Malaysia. It is expected that the

study of how open spaces such as waterfronts can give a part in creating the image and importance to the public to produce successful scientific studies.

1.3   Problem Statements

In the era of the industrial revolution, the riverbanks changed into port cities. Port is connecting the centers of industry to bring the necessary requirements and the industry through water transport that contribute to job creation in urban areas (Hoyle & Pinder, 1981). Migration of population from the countryside to cities in search of jobs increased industry and lead to the rapid growth in population (Hough, 1984). At the end of the 19th century, the role of the port started to decrease due to the construction of the railway and air transport began to replace the role of water transport in the carriage of goods (Tunbridge, 1988). After the Second World War, a large number of harbor areas near large urban centers around the world such as London, New York, Boston and Sydney turned into dead activities. Most of the area was left abandoned gradually. This is due to three factors that are interconnected containers of new technologies, methods of roll-on/roll-off and bulk cargo facilities that require more storage space (Hoyle & Pinder, 1992). Relocation of the harbor of the old port to the new port with container technology reduces the number of workers in ports until connection port, and the city began to separate the physical and socio-economic level (Hoyle & Pinder, 1992).

Even so, the redevelopment of port visits can restore the social and economic activities, the environment and land use to the cities that suffered a setback. The concept of this reconstruction came from several sources such as the port of Baltimore, London Canary Wharf, and the Sydney Darlington port. Since the redevelopment of the waterfront in Baltimore, the phenomenon of the reconstruction of the waterfront and the harbor, or now known as syndrome Baltimore has opened a new chapter and contributing to the

quality of urban space on the riverbanks (Breen & Rigby, 1996; Hoyle, 2001a; Shaw, 2001). Setbacks harbor and industry areas around then met by redevelopment programs (Hall, 1993) were able to improve and enhance its activities in the region with new functions and events.

In Malaysia, cities such as Kuala Lumpur, Melaka, Kota Bharu, Kuantan, and Kuching exist along the river or river valley (Andaya and Andaya, 2001). Malaysia can be said a wealthy country with a body of water as the river has a great and vast potential for tourism. Malaysia has many rivers in the north to the south of Peninsular Malaysia, and Sabah and Sarawak. History shows that some cities in Malaysia begin to develop starting from the riverbanks such as Kuala Lumpur, Melaka, Johor, and Kuching.

Physical changes are always done as a first step in the process of redevelopment on the riverbanks. One of the issues in the design of the city in connection with the redevelopment of the waterfront is a change of identity and quality degradation due to inappropriate physical disturbance (Danisworo & Martokusumo, 2000). Although physical improvement was seen can improve the physical condition of the city but not in the long term. It needs repairs and increased economic activity (economic revitalization) on socio-cultural and environmental aspects (Danisworo & Martokusumo, 2000). Physical changes in the environment lead to a clash of perceptions of users and has proven to change the fabric of the city and disturb the meaning sense of place. The sense of place relationship can be developed through the physical elements, activities, and meaning in human experience to the public. In some research, urban design untied on the importance of physical activity in creating a sense of place and identity.

The rapid pace of urbanization which causes a sudden change in environment with structure and modern image that affected the quality of public character. Identity can be eroded due to an act of economic globalization, generic urban environments with little correlation with the landscape, ecosystems, history, culture and local communities (Wheeler, 2004). The loss of identity is produced from non-public because they are not significant meaning in it (Relph, 1976). This scenario leads to a place that has no meaning separate users with the local culture and way of life. As a result, the development of the city at this time tend to be disintegrating and less attachment to the place.

As seen in cities all around the world, their waterfronts are enhancing by new signs of life. Areas that once dominated by highways or industry are now opening up to redevelopment and offering opportunities to create new public spaces and to rejuvenate that old one. However, decision makers eager for solutions on to uninspired design and development plans that constrict public use (Ethan, 2013). Some waterfronts are effectively privatized with one-dimensional commercial activity like hotels or convention centers, others with housing that discourages non-resident from using the space. Even when land is set aside for parks, they can fall short of the mark because they have been designed only for passive use or highly structured recreation. Since most waterfronts often start in decrepit shape, any development tends to be welcomed. When one particular use is allowed to dominate, the long-term potential of the waterfront is degraded (Ethan, 2013).

This research attempts to find out why most of the waterfronts in Malaysia is still weak in term of identity, reflect the different characteristics and the lack of places identified. Furthermore, external influences have caused the waterfronts appear with global

features and eliminates the building and space with the traditional values and culture as well as reducing the role of public open space as a place of social and cultural interaction. This transformation has affected the way users experience and a taste of local places and the psychological meaning of the existing. Place attachment highly correlated with the quality of the user experience on the site. This study examines the importance of functional and emotional areas of public open space to people who use and occupy a territory. To prove the identity of the place must be checked by understanding the meaning of place attachment and the factors that affect the bond.

1.4   Research Aim and Objectives

The aim of this research is to verify the ability of the place attachment and the factors that influence user's perception in the context of open space on the waterfronts in Malaysia. Then to find out the cause (causal) between the places attachments, meaning the place and the characteristics that influence the level of public engagement.

The objectives identified in this study are as follows:

   i.   To determine the form of emotional and functional attachment of open space or place in the development of the waterfront.

   ii.   To identify the reasons that affect the place attachment especially on the meaning and importance of the place.

   iii.   To identify the level of place attachment with the user's roles in the open spaces.

   iv.   To identify the characteristics of open space along the waterfront, which influences by user's engagement.

1.5 The Criteria of Selection of the Study Area

To achieve the goal of the study, two open space river bank, which pioneered the revitalization of urban spaces, as a public space river bank have been selected as a case study, namely, (1) Waterfront Sarawak in Kuching, Sarawak; (2) Waterfront Lumut in Lumut, Perak. The area under study is not based on a comparison but in the context of a discussion that can enrich the study. Both of these sectors have a lot of important buildings, the history and the changes catered to regarding its characteristics. The area also has a modern urban design physical destination and attraction of local and foreign visitors. In this research, justification of the intended place of public open space which is represented by the waterfronts promenade selected as the study area. Waterfronts area is one urban space that is used for a variety of activities. Places are selected based on the characteristics of the physical, social and cultural functions. Criteria and interests of these areas are described in chapter research methods (Chapter 4) and section area of the case study (Chapter 5).

1.6 Study Approach

This research approach and concept based on the place (place-based) in dismantling the public perception of the city. Based on Relph (1976), he stated that the place is a space imbued with meaning. Therefore, the selected public open space understood as a representation of human experience regarding physical elements, activities, socio-cultural and psychological. The definition of open space is not limited only to the physical form only. Otherwise, it is examined to those who live in places with real human experience and perception of the city. The study centered on (1) the place attachment is a positive element that can contribute to maintaining the identity of the place, the place and the sense of place thus increasing psychological well-being, purpose and pleasure to urban user's; (2) experience where not only physical features

17

but perception and psychology; (3) the user experience and their perception is a primary source of understanding and attachment to place a distinguishing characteristic.

1.7   Research Method

This research involves the physical space, descriptive and places the affective meaning of experience as well as the environment. Therefore, research should be dismantling the place attachment through checking and observe the reaction of user's on the importance of physical elements and activities in support of the bond. To achieve these objectives, the method of mixed approach (quantitative and qualitative) by the multi-dimensional nature of the study. Two open space river bank are selected as a case study namely Waterfront Sarawak in Kuching and Waterfront Lumut in Perak. This research uses three techniques to collect qualitative and quantitative data that include; (1) literature on current and updated theories, concepts and principles of place, place attachment and other related concepts; (2) study questionnaire and interviews to gather data about the user and the importance of public engagement; (3) observe the area to study the form of bonds, the activity and the characteristics of the dominant place. Research method and level of analysis described in more detail in Chapter 4.

1.8   Study Contribution

This study contributes to the development of theory in connection with the place construction and attachment to the place where the characters have different groups and different user roles in experiencing locations in the city. This study is an extension of knowledge about the place attachment of the physical and social context and interpretation of the culture of the place. This research is necessary to inform the continuation of features and unique identity in open space waterfronts in Malaysia. In the context of urban design, environmental psychology and perception not yet

maximum explored, while the elements of meaning contained in it is sometimes neglected. This knowledge provides significant value to planners and urban designers in managing changes in the physical environment liveable (livability) for the benefit of society. This study strengthens the knowledge about the characteristics and identity of place in the context of Malaysia, especially to the public open space on the waterfronts in Malaysia. The sense of place is formed not only by the ability of the physical elements to stimulate all human understanding but also to evoke feelings and emotions to the users. The research is believed to reveal the charm and meaning of place as it seeks to avoid losing the characteristics of an attractive, meaningful and relevant for the users that affect their attachment to the future.

1.9   Limitations of Study

Place attachment is a study that has great scope and opportunities. It can cover several of aspects and elements. Although this study has achieved its objectives, there are still some limitations faced. First, due to time (one year) and cost constraint, researcher are only able to focus on two case studies in Malaysia which are in the peninsula and East Malaysia (Malaysian Borneo). Even though with only two case studies alone, researcher continues to study it in depth and detail. Second, the researcher only lead to some aspects to be evaluated and reviewed. Where researcher only focused on the place attachment and the factors that influence it. This research is based on experiences and perceptions of individuals. This research can be explored by learning on how the attribute affects at particular places in the place attachment. For example, regarding impact on public understanding and public engagement activities in strengthening the role of place attachment.

1.10 Research Design

This research adopted a mixed method approach due to the nature of the open spaces and place attachment elements that could not be easily quantified. Five important research levels are outlined whereby every level have a different approach (refer Figure 1.1). The levels are as follows:

i) **First Stage: Exploratory Study**

This level focuses more on the initial information extracted from the previous study that is being conducted, which later be a reference to other information were received from the next level of research. In this level, the purpose and objectives formation are made based on the problem statements identified in the study area. Both the purpose and objectives are vital so that the study implemented would not swerve from its meaning. The scope of the study is also relevant for the exploratory study to achieve the objectives. This level needs a clear and in-depth understanding of what to be explored. It requires a lot of reading on books, reports, and articles on research concerning waterfront.

ii) **Second Stage: Theoretical Study**

In this level, a more convergent study is required, to understand the concept of upgrading and revitalize the towns in detail with information such as the definition of revitalization, place attachment, sense of place, place characteristics and waterfronts elements. In this level, the study involves auxiliary data collection. Secondary data require information search from reference books, Local Authority reports, by-laws and other related articles.

iii) Third Stage: Data Collection

In this level, the primary data was gathered through fieldwork in the study area. The primary data collection also is done through method investigation, in-depth interview and observation. The data collected then be analyzed to produce a few constructive and efficient discoveries as well as sound theoretical principles.

iv) Fourth Stage: Analysis and Findings

At this level, all information which has been obtained from respondents participated in the questionnaire and through observation on the study area going to be processed and analyzed to produce full research findings on the real problems, which have occurred in that particular field.

v) Final Stage

In this level, the researcher formulates all analyses and results from the findings and information obtained while conducting the research on the study area. Conclusion, discussion, and recommendation were derived based on the results and data analysis.
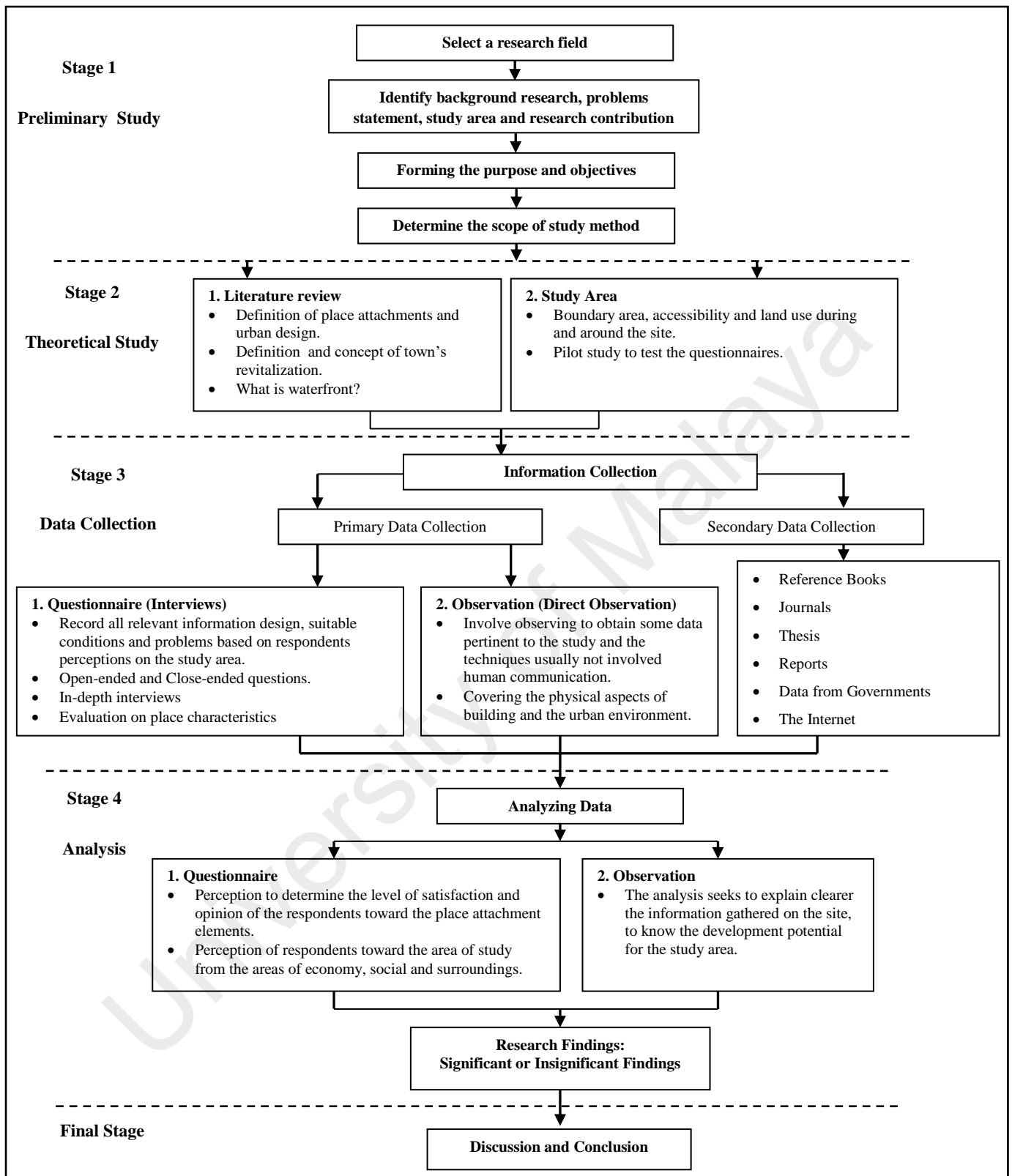
Figure 1.1: Research Activities.

1.11   Research Structures

This thesis report is divided into seven (7) chapters which are:

Chapter One: This section describes the overall content of the thesis particularly on the research background, research purpose, research objectives, research methodology, and research contributions.

Chapter Two: This chapter explains the concept and theory of place, place characteristics, and concept of revitalizing the city through some philosophers and academicians' perspectives. In this chapter, all discussions were focused on to the theoretical development of the place attachments, revitalization and waterfront categories used in the development.

Chapter Three: This chapter examines the history of the waterfront development in Malaysia to see how the initial placement in the coastal ocean or river has grown and thrived, transforming earlier settlements into a town. Furthermore, the discussions emphasized on the changes of economic, social, physical and environmental aspects of the city. Some examples of the waterfront development that have been carried out locally were included.

Chapter Four: This section describes the research methodology used. Starting to be introduced from the preliminary study, the concept of place attachments, urban revitalization regarding physical design are going to be highlighted. Primary and secondary data identified in the development of this research. This chapter explains how data are found from the location of the study, through on-site observations and questionnaire, including data that are gathered from the sampling and data analysis

processes. This chapter elaborates on scope, methods, and techniques used in detail. This means that each approach is embedded in the concept of a place attachments that will be explained more clearly in this chapter.

Chapter Five: This section explains the study area (Kuching Waterfront and Lumut Waterfront) in term of physical characteristic and social, urban design and activity accordance with the changes and revitalization of the place.

Chapter Six: This section describes the analysis and findings. Based on the research method used, the study then is explained in this chapter. The final result in questionnaires and observations also be defined more clearly.

Chapter Seven: The writing of the research reports followed a system sequence of each chapter so that readers can understand the flow of the study. The researcher also explains the theoretical framework of the research. Based on the theoretical framework of these investigations, the researcher can determine what topics can be used for the preparation of the research report.

CHAPTER 2: LITERATURE REVIEW

2.1   Introduction

This chapter discusses on how the waterfront development and place attachment can be part of the revitalization. The discussion starts with five parts; the first describes the concept and theory of the place, meaning of the place, place attachment, place characteristics and the revitalization concept that includes the terms. Definitions and terms used in the study were taken from a variety of research scholar and practitioners of urban design, environmental psychology, and human geography.

2.2   The Concept of a Place

The term of the place is understood as a strong emotional attachment to either a temporary or an extended period between a person and a physical location. According to Norberg-Schulz (1980) disclose the theory of place that emphasizes the quality of life or existential human being in the world, where the concept of existential space is crucial in understanding the architecture. Norberg-Schulz uses the idea of a place to define the characteristics of the existential space. Using the Roman concept of genius loci, a place defined by Norberg-Schulz as space coupled with the how things are. He describes the existential function of architecture (building) is to transform the site into a place and capable of opening that has the potential significance to the environment (Norberg-Schulz, 1980).

Based Punter & Carmona (1997) and Montgomery (1998), there are three main elements of a place which is a form of physical activity and meaning. In the context of environmental design, where defined as a physical condition. Another opinion of the researchers who keep an eye on the psychological aspects of the relationship between

humans and the environment, recognizing that are three interrelated elements are related which is physical condition, psychological, internal, social process and the individuals and activity that occur at the site (Relph, 1976; Canter, 1977; Stedman, 2003). Meanwhile, Gieryn (2000) explains that the place should have three benefits of geographical location, shape material, and meanings or values. He pointed out that humans can make a dynamic and invest meaning in it. This research argues that without involving the significance of man's relationship with the public, then all forms of evaluation on the quality of the place will be weak.

According to culture aspects, a place also means through the human experience. It is a point of union between the physical and cultural characteristics and individual perceptions and functional needs (Bott, Cantrill & Myrers, 2003). Human perception will arise from the psychological process (meaning and attachment) stemming from a situation. This shows that the place attachment with the physical elements, social and cultural influence the identity and characteristics. Although research on the link between physical condition and activity with environmental quality ever done, often do not pay attention to the influence of the place and meaning of human attachments to place. This research tries to identify how these elements are related to each other from experience of the city in the context of culture and its influence in increasing the sense of place.

In producing place in urban areas, much attention has been made to preserve the physical elements, but the meaning of these places do not always get the attention. Place attachment is formed by the integration of people with a place and meaning appear in it. The concept of a place is forms of physical and psychological (Steele, 1981) and these elements mixed to create the sense of place and characteristics that place (Punter & Carmona, 1997; Montgomery, 1998). Psychologically a right place needs to be united in

feeling, emotion, and behavior that shows the human response to the environment. According to Stedman (2003), the meaning of a place based on their environment attributes. He stated that the physical benefits not directly generate a sense of place, but is influenced by the symbolic meaning of the landscape which then relates to the evaluation of the strength of the place attachment. Gustafson (2001) explains to include three elements which are circumstances, activities, and sense of place into his research to grasp the meaning of a place completely.

2.3   The Meaning of the Place and Environmental Experience

An understanding of the environmental experience and perception is an important element in the urban design (Carmona et.al, 2003). Research in environmental perception is stronger with attention to the sense of place and experiences that occurred in the urban environment (Carmona et.al, 2003). Relph (1976) and Tuan (1977) viewed meaning as an essential element of the experience and perception of a place. Experience living in a place always relates to the physical aspects, visual and symbolic. They argue that the place is the center of meaning or a form of life from experiences and influenced by the intellectual and emotional reactions.

Perception associated with mental images, consciousness, and physical sensation and cognitive intuition element. Perceptions can also be replaced with cognition, which is a form of understanding an environment that has a broad range of information, arranged, selected and values (Carmona et.al, 2003). Relph (1976) argued that an approach could pave the way for making judgments about the level that affects the user experience and sense of place as well as being a source of meaning or spirit of a place is on. Davenport and Anderson (2005) stated that the place has the physical characteristics of a situation, activities and experiences, phenomena and social process and individual interpretation in

which meaning can be formed. Some meaning of place translates to a strong emotional attachment and influence attitudes and behavior. For example, a park in the city can be linked with different layers of meaning such as; meaning function (where to walk), emotional eating (a place to forget about the problems) and social-cultural meaning (place to meet with friends and have a memory of the past).

Meaning and attachment are influenced by culture and experience of the past and will affect the image and determine social values and culture of a particular place for its residents (Rapoport, 1977). About the meaning of a place, we need to understand the psychological aspect further in the context of changes in the city center that are affected by the globalization of culture and the architecture (Altman, 1975). The debate over the notion that humans have a sense of taste and relate to different meanings. The extent to which the debate can be applied to places with different circumstances or situations such as public spaces which come under individual (human) and multi-cultural activities.

2.4   Place Attachment

Place attachment is a fundamental concept in this study. Definition of the place attachment includes positive emotions between individuals and groups and their environment (Altman & Low, 1992). The psychological state of well-being resulting from access to places or situations that put pressure on the separation of the place will also affect human perception to the public (Giuliani, 2003). Place attachment and concepts that are related such as the sense of place was dismantling the theory during the last three decades (Tuan, 1977; Relph, 1976; Altman & Low, 1992). Hidalgo and Hernandez (2001), have stated the definition of place attachment as the attachment or association between an individual (human) with a special place, expressed through integration between influence and emotion, knowledge, belief, behavior and action. The place

attachment is explained with functional attachment between people and places; it is also described as the dependence on the place (Stokols and Shumaker, 1981). According to Williams, Anderson, McDonald and Patterson (1995), the place attachment is developed when a place is right can be identified or felt important by its users and provides the environment to meet the needs of function and supports the goals of behavior which is better than the alternative existing.

Research on the sense of place is to focus on the place attachment, the dependence of the place and identity of place (Jorgensen and Steadman, 2005). In particular cases, the place attachment is used interchangeably with a sense of place, while the character and places where reliance is placed as a sub-concept of place attachment. Steadman (2003) put the place attachment as a one-dimensional measurement of sense of place, based on his opinion sense of place is a dimension which is tough to measure because its definition is vague.

According Gieryn (2000), place attachment produced from a variety of factors such as personal experiences, social and cultural activities, geography and architecture of the place. He stated that the loss of a place and its meaning would have an adverse impact on individual identity and community, memory and history as well as the psychological balance. Hidalgo and Hernandez (2001) describes the main features of a place attachment is a desire to maintain a close attachment to objects that reflect the special feeling of a place. Conjunction with this research is linked with the elements of attractions, the frequency of visits and familiarity. Therefore, the place attachment may be considered as variables that can be used to measure the sense of feeling that gives instructions based on the emotional feelings and reactions of the users on the characteristics of the places in the city which is an important part of the quality assessment of urban design.

2.4.1   Place Dependence

Place dependence relates to functional attachments which are the importance of a place and conditions that make activities or special needs (Stokols and Shumaker, 1981). Achieving goals with a high value will create a more positive feeling to the place. According to Smaldone (2005), the dependence of place appears from the description of someone on two main points which is the latest quality place and the quality of a substitute as a comparison to the current place. He connects dependence of place with a strong feeling related between people with a particular location. This understanding can also be linked to the quality of the physical elements and different activities with other areas which are a major concern in producing a quality product urban design and evaluation of successful places.

2.4.2   Place Identity

The identity reflects a deep relationship between place and personal identity (Proshansky, 1976). The point is psychological construct identity. Proshansky, et.al (1983) states that place identity is defined as a sub-culture of a person identity who comprise the physical world in which personal life is held. He argues that identity is a very personal relationship with the place. In other words, the place offered individual can express and explain their character. The place provides an important role in developing and maintaining the individual identity and group identity in the community (Davenport and Anderson, 2005). Place identity is defined as a place where you provide information about the identity of the individual or society (Prohansky, et.al, 1995) and is a combination of unique features (Relph, 1976). A place is also a process of experience (experiential) that make up the identity and unique characteristics place. To understand the process, it is important to review the interpretation made by the community as local values in their efforts to create a sense of place (Punter, et.al. 1997). To find the place identity, research in urban design

usually focus on the appearance and image of a physical element but failed to understand the meaning of the place as a difference indication. Therefore, this research will support emotionally in a place identity and quality research of a place.

Place identity refers to the importance symbolic value of a place as a storage place for emotions and relationships that give meaning and usefulness for life, sense of belonging and beneficial for the society (Prohansky, et.al, 1995; Shamai, 1991; Relph, 1976). Several investigations in environments psychology connecting the place attachment to the individual identity and the community (Prohansky, et.al, 1983), but a different shape to the characteristics of an area associated with the place attachment received less attention. In the context of the urban design, the types of identity are linked to the image of the physical and human perception, not to the stage of a relationship and the depth of its meaning (Relph, 1976). This investigation aims to explore the place attachment to identify place identity in the context of open space particular waterfront in the city center. The reason is to make a place can be seen as a whole and avoid focus from the perception of outside image are made by outsiders who are emotionally clearly separated from the venue.

2.5   Factors that Influence Place Attachment

Some of the literature on place attachment have been clarified that the form and level of engagement are influenced by several factors. Drafting place attachment is affected by the characteristics of the socio-demographic (Altman and Low, 1992; Gustafson, 2001), the type of landscape (William, et.al, 1995), as well as activities relations and management (Kyle, et.al, 2004; Davenport and Anderson, 2005). According to Lobo (2004), the sense of place in the community (in the context of North America) starting not only from the length of stay or the ownership of the place but relates to all areas of

physical, emotional and perceptions that exist in the place. Whereas according to Steadman (2003), the physical environment and its characteristics contribute in shaping the sense of place. He found that the physical characteristics followed by a strong attachment and place satisfaction. However, he believes that researchers failed to explain the effects and causes of the formation of the relationship (linkage). He added that the research is structured to check the degree of influence which the characteristics of the public open space on the edge of the water affects the place attachment (see Figure 2.1).
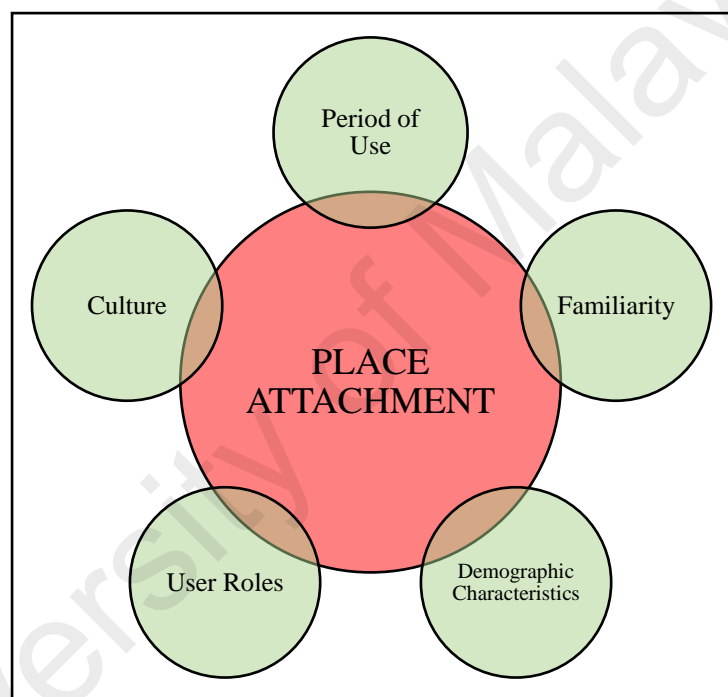
Figure 2.1: Factors that influence place attachment.

2.5.1   The Influence Duration of Use and Familiarity

A place considered as the most popular by individuals or groups is a place that has experience with the highest ratings, usually resulting from process habitable with a long time in particular localities, important events or frequency of visits (Hay, 1998; Gustafson, 2001). The research defined that the time dimension can be attributed to familiarity. However, the effect of familiarity on the place attachment not been described widely. Other influences such as memory and history of a place and the role of the user

32

are not defined in the place attachment research and sense of place. In this study indicated hypothesis that the duration of use and familiarity of the public open space on the waterfronts affects the level of attachment.

Familiarity can be divided into four main dimensions. The first relates to the local knowledge as knowing where it is located. The second is a visual identification that refers to the ability to identify a place. The third is the introduction of place names, and the latter is integrated with it. The most familiar are the most widely and most frequently used or visited. According to Mainardi, et.al, (1990), there are two different levels of familiarity namely known as acquaintance familiarity and functional familiarity. The first stage refers to a frequently visit without a particular purpose. The second phase relates to the resolution to keep in touch with the place and integrated with the facility through activities that occur in it. In this study, familiarity and duration of use apply as instructions for functional attachment in place relate to the identification and functional aspects. It is important to understand the familiarity with the local context because of changes forms at a place like a waterfront if not implemented prudently affects the familiarity of someone; the users lose attachment to a familiar place to them.

2.5.2 The Influence of Demographic Characteristics

The strength sense of belonging at a special place affected by races, ethnicity or identity (Rose, 1995). This idea explained the meaning could be categorized base on the diversity of human characteristics. It is relevant to identified place attachment and distinction places are basically with the approval of the ranked set of users according to their roles and features of their socio-cultural. According to Rose (1995), if a place becomes central to human identity, a strong emotional attachment to a place can lead to mastery of space.

2.5.3 The Influence of User Roles

The meaning of role is something or someone involved in situations or events and the impact they have received in it. Users are those who are in a public space or building to use passive or active (Francis, 1989). In accordance with his opinion, that the place attachment is affected by the length of the relationship and frequency of use, the user in this research refers to those who regularly use (an indication of the level of familiarity) and is located at a place for social and economic (indication of the level of freedom).

2.5.4 The Influence of Culture

The reaction occurs in an environment influenced by the culture, beliefs and past experiences (Rapoport, 1977). Culture is always associated with beliefs and perceptions, values and norms, customs and forms of behavior in clusters of characteristics (Altman, 1975). The cultural aspects of a place such as meanings and characteristics are related to the environment (Gustafson, 2001). Coinciding with the opinion of Low (1992) which describes that the place attachment of the cultural influences and activities manifest from the sources of the socio-political, and cultural history.

The diversity of the environment can be used as a mirror of cultural uniformity which distinguishes one group to another group (Rapoport, 1982). Rapoport (1977) stated that it is a way of life, symbol, meaning and cognition that are accepted as a norm, and a common interest in community groups. In the case of social pluralism, it is understood that the principles of the culture giving a pivotal role in shaping the definition of group identity that affect the characteristics and identity of places they occupy. Single attachment can be detached from the culture. In reviewing the issue of cultural changes and differences in attachment parallel to form a different culture, but Riley (1992) tried to explain to isolate individual through universal values and meaning given by the group.

In this study, the place attachment seen through as personal experience about the place influenced by the characteristics and values of the culture created by the community.

2.6   The Difference Place Characteristic

In the context of urban design, urban characteristics associated with the features of a place that has particular characteristics, differences, unique, famous, dominant, easily recognizable, have memory and easily identifiable by humans (Lynch, 1960). In perception research, identity is defined as the introduction of an object that has the difference from other objects, the object is recognized as a separate unit (Lynch, 1981). His relationship with the place attachment is how individuals or groups using the space, then give it meaning as to distinguish it from other places (Relph, 1976).

The identity and characteristics of the place are the dynamic elements of the environment. Identity is not limited only to retain its shape and unique buildings. However, by maintaining the values strengthen the identity. This study was designed to understand the relationship between characteristics and identity of a particular place such as a public open space waterfront and place attachment to users. It is important to comprehend how these qualities are interrelated and find the most appropriate measurement strategy so that quality differences can be identified.

2.6.1   Sense of Place and Spirit of Place

The concept of sense of place has been used in the investigation of the human relationship with the place, the place of attachment and meaning (Stedman, 2003; Lobo, 2004). Concepts such as rootedness, topophilia (love of place), place emotion, the place attachment are also used to explain the sense of place. Before this concept is unclear and its definition is tough to be defined and measured (Shamai, 1991). The study of literature

describing the research design that connects the city with a sense of place identity and characteristics of the city relates to the form, privileges and urban activities. While psychological research environment put it as a concept place attachment in a broader scope.

The place can be seen in two aspects, namely the sense of place and a spirit of the place (Steele, 1981). The sense of place expressed as the experience of someone in a situation and how a person's taste and perception to a place (Relph, 1976; Williams, et.al, 1995). The sense of place is the involvement of the human need to get to know the environment personally. The spirit of the place is expressed as a combination of features that give a particular flavor to a location/place, also known as the place spirit. Relph (1976) believes that the spirit of a place topography and appearance, function, economy and social activities, and special significance stemming from the past, the present situation and the sense to defend it. In the development of the modern city, the difference of place raised by meaning and spirit is often reduced to the appearance, image, and function of the economy that is not associated with history, social and cultural sense. Until now identity and the meaning of a place associated with history and culture will be lost and unknown.

Human and activity is the key to life in a place that generates a sense of belonging and society passion or community (Steele, 1981). Buildings and open spaces developed to form a pattern of physical, human and its activities as a dynamic element of the urban environment with a unique atmosphere that makes up the whole place. Public open space such as waterfront is a place where the elements dynamically worked in an environment oriented to the public. This is where the source of physical and emotional attachment are united in experience in a place full of meaning.

2.6.2 Attributes Relates to Places

Attributes are universally accepted as a functioning reacts and has a good quality. However, the actual significance of the attribute can only be understood by understanding the meaning and place of attachment localities. This is an emerging characteristic strength and identity are formed. Introduction positively on the features of a place and a positive feeling to the place where it shows the difference positively contribution to user identity and attachment to the place. In this research, the discussion more about the attributes inherent to the activity, image and physical form. It is to establish a theoretical framework as the basis for the study.

First, attributes related to the activity. This part debate on the definition and role of the vitality, diversity, and transaction in producing characteristics and identity of the place. Vitality differentiated according to the level of involvement and the capacity to produce a selection of activities for all users. An area that responds to accommodate human activities (Jacobs, 1961). The meaning of vitality is liveliness, power, and spirit of place as a result of the intensity and diversity of activities. Attachment developed through engagement that exists with the place. A pedestrian movement is a form of participation in a particular place in the public space. Movements in the public space in the city are the heart of the experience; it is also an important factor in producing the life and activity (Carmona et. al, 2003). The number of people inside and around a public space at different times of day and night, the number of cultural events and festivals, public facilities, public space and active life feeling the spirit of users affects the vitality of the place (Montgomery, 1998).

According to some scholar said, diversity as a choice of activities and users. It also includes multiple buildings, the types, and functions. Best public space is a space for physical, economic and social features of uniformity, as well as a longer activity contributes to the good public realm and safe (Jacobs, 1999). Bently (1992) and Dolbani (2000) agreed that diversity is an important attribute in the background of the city through a mixture of differences that provide a level of choice and multiple usabilities for people. It affects the mood and safety that can support functions and social attachment to the place.

The existence of activities which help to generate transactions not caused by the physical element, but it is described by the coherence of individual experience. A good place in the city provides space for social and cultural conduct transactions through friendship, events, and opportunities. The transaction is recommended if the business continued until the frequency starts meetings among users, motion and object exchange continued throughout the day and night (Montgomery, 1998). The role of social transactions (social ability) which is described as the sense of welcoming visitors and residents in public spaces and the integration of people in the streets create an environment sense of place (Shuhana et.al, 2004). Understood that the activity plays a significant role in influencing the place attachment.

Next, an attribute attached to images. This section describes the definition and purpose of uniqueness, comfort and security/safety in defining good and successful places. Uniqueness was when certain features in a background practiced, dominant and unique to distinguish it from other locations. Quality and objects appear as real in our experience of place that set the impact strength, uniqueness and authenticity identity of these places (Relph, 1976). Comfort is an attribute of a successful public space and a measure of good

public space (Carr et.al, 1992; Jacobs, 1999; Carmona et.al, 2003). A sense of calmness can be achieved by being in a city park with trees, greenery, and features of the water and away from the busy traffic. Comfort can produce images that are both positive and felt by the user (Carr, 1992; Lynch, 1960). Meanwhile, safety and security is an attribute that is closely related to comfort. It deals with aspects of threats, fear, and danger that affect the city's image and perceptions of users in a negative way. In another word, crime, road safety, vandalism is a problem that affects some places in the city. However, the presence of people in a public open space can increase the sense of security so as to reduce the fear (Jacobs, 1961; Whyte, 1980 Gehl, 1987). Some ways to promote safety is to demonstrate clearly between public, and private space (the territorial), natural (informal), surveillance (eyes upon the street) is enhanced by the diversity of activities and functions (Jacobs, 1984).

The final attribute is attached to the physical form. Two key features of the physical elements that contribute to the public's accessibility and understanding (legibility). Accessibility is associated with the ability to reach out and meet other people, activities, resources, services, information or place covering the quantity and diversity of elements (Lynch, 1981). Connectivity is critical in supporting the vitality of streets and pedestrian movement. One of it is transportation; it is very closely related to transparency (permeability) place that ability to get more and easily move through space and provide ease of movement. Accessibility is a major factor in determining the quality of use. These requirements include location, visual sign, and understanding (Carr, 1992). This is an essential element in economic activities and transactions. Accessibility to public amenities and facilities for all types of users is also important in determining the quality of the place.

Legibility refers to facilities that can be identified, arranged and performed by people around. In other words, understanding the extent to which the form can establish a sense of place. Understanding is describing how easy people can understand the procedures placement (Bently, 1992). It refers to the clarity of the good cityscape physical shape and function (the pattern and type of activities). The high level of understanding makes it easier for people to form an image of a precise and clear about where the visibility and appearance allow users to integrate with the urban space (Dolbani, 2000). Before this, Lynch (1960) have stated five main physical elements that affect the way of the image is a path, edge, district, node, and landmarks. However, these features cannot be realized in isolation but must be combined to produce an overall image of the city to contribute to creating the site.

2.6.3   Identification of Place Characteristics

Lynch (1981) has stated that the meaning of an object is an important aspect in identifying the image of the city. He recognizes that the image of a healthy environment requires three attributes: identity, structure, and meaning. However, in his research on the image of the city, Lynch (1960) do not integrate the aspect of meaning as likely to be less consistent at the city level and in different groups of people. Using the technique of mapping cognitive (mental) and interviews with residents of the city (in his case in Boston, New Jersey, and Los Angeles) to study understanding of users. In the selection of respondents, Lynch (1960) did not distinguish people on the experience, background and social and cultural characteristics that can lead to different results. Therefore, this research takes into account the various backgrounds of the respondents and their role when in public spaces. Evaluative aspects related to the assessment of achievements, opinions or considerations while affective aspects related to the emotional reaction to such a place. Therefore, it is important to understand the nature and the characteristics of

the places related to emotions, feelings, and meanings attached to the experience of the place. They can be obtained from one or more attributes or characteristics of a dominant supports place attachment. The introduction of a difference is not enough if the deep meaning as a place not integrated into the measurement.

2.7   Revitalization

The revitalization is oriented on the physical beauty and supplemented with economic improvement of the society and cultural identity (Siti Norlizaiha Harun, 2004). The process of revitalization of an area accounts for various aspects of physicality, economic, social and cultural aspects (McCarthy, 1998). The revitalization approach must be able to identify and harness the potential of environmental resources, such as history, meaning, the uniqueness of the location and image of the place. It is not just a physical improvement or tapped portions of the city (Siti Norlizaiha Harun, 2004). The revitalization is a continuous program that is implemented in the early stages, up to a long-term plan that involves the management of the area (Brian Hoyle, 2001).

Revitalization is being defined widely to include economic, social and community development and aims to promote cultural aspects and historic preservation (Frank & Peterson, 1999). Heritage and culture have also become an important economic product, especially as a place promoting strategy in globally compete for city economies (Wu, 2004). Based on Richard and Carter (1997), revitalization is divided into four-point approach; 1) the development of an active organization to coordinate the efforts and to build partnerships; 2) restructuring of the area's economy to fit consumer demand and to develop new business niches; 3) rehabilitation of the areas historic buildings and the area's physical environment; 4) promotional efforts to market local businesses and change public perceptions of the area as a whole.

Significantly, the efforts of revitalization can develop and raise the spirit of the local community, create a healthy living, and provide benefits regarding the socio-cultural and economic conditions of the community. Therefore, the revitalization programs are implemented with intentions to diminish the deterioration in the area, where features of the image of a protected area that offers a natural exploration of culture, and to ensure the area is alive and thriving (Siti Norlizaiha Harun, 2004).

2.7.1   Urban Revitalization

Urban revitalization has emerged as a response to the urban deterioration problem. The type and level of various interventions aiming at achieving urban revitalization vary according to local needs and urban trends (Camila, Maria, Luis & Rosario, 2010) The city is said to be revitalized when its emphasis is on the improvements regarding space for the community and the government. In the past, the towns were left to decay naturally, and even if they developed, the government had to determine the development of the city either through the endorsement of a mega-development, the construction of great monuments or the building of wider roads. Indirectly, the people living in those areas were the ones who suffered, as a result of the development where they would gradually have to be removed (Elazar, 1992).

Elazar (1992) highlights when the revitalization of the city was implemented, they did not only improve the environmental elements but also would provide opportunities to develop the local communities. Thus, urban revitalization is considered as a form of the reclamation of the city, which provides an opportunity through the redemption of the area to be developed, escaping the condition of abandonment.

Many aspects comprise or are related to the urban revitalization such as;

1) Social aspect – The social aspect of urban revitalization address issues of social equity, social inclusion, and community building; alternatively community cohesion or social capital (Litman, 2009). The perception of the social exclusion term currently revolves more around the concepts of racial and ethnic discrimination but it is considered a much broader approach that considers social exclusion as a multidimensional process, in which various forms of exclusion are combined; participation in decision-making and political process, access to employment and material resources and integration into common cultural process (Madanipour et.al, 1998).

2) Economic aspect – The economic aspect of urban revitalization can be disaggregated in three main categories; private investment and increase economic competitiveness, employment, and business location. An integrated planning approach that combines retail with housing, education, enterprise, and transport, can ensure the maximum positive impact of an investment (Business in the community, 2007).

3) Physical/environmental aspect – The physical aspect of urban revitalization is related to the physical deterioration of the built and natural environment that the urban fabric develops in. According to Doratli et.al, (2004), obsolescence of built environment can be considered a process through which most of the problems of traditional urban quarters are being generated.

4) Health aspects – Vlahov et.al, (2006) state that urbanization is a major public health challenge for the 21st century, as urban populations are rapidly increasing, necessary infrastructure is insufficient and social and economic inequities in urban areas result in significant health inequalities.

5) Historical/cultural aspect – According to Ebbe (2009), the conservation of cultural heritage supports urban revitalization by preserving city livability, increasing competitiveness and creating a broad range of income-earning opportunities.

2.7.2 Revitalization of Waterfront City

In this globalization era, the 'trend' world cities in the development planning would typically project their urban development strategies to enable them to gain the 'world city' status. In this regard, planning strategies have contributed to the phenomenon of dynamic growth of the major cities in the world. However, the "waterfront city," though it dated back to the history of exploration of the world's maritime nations in the 17th century and 18th in Europe as areas of "new Frontier" behind the mysterious end of the world are still accessible. It was the law at that time where people raced to explore the world and penetrate the perilous oceans in their pursuits of finding new territories. Various myths have shown the spirit of heroism where different nations had been daring enough to face the sea. It was the pride of many nations of the world's seafarers as recorded in the history of the world, such as English, Arabic, Spanish, Portuguese, Dutch, French, Chinese, and others. Every journey was marked by the old port towns that reflect the historical monuments spread across the sailing world (Martono, 2009). These old port cities have inspired the future development of the city.

Based on Schubert (2011), the term of the revitalization of ports and waterfronts has a range of meanings attached to various processes and planning directions. Port planners focus on internal port development measures such as the relocation and reorganization of container terminals. However, urban planning is concentrating on changing former port lands and economies to activities such as tourism, services, housing, and leisure. Terms such as waterside and quay describe buildings, areas, and facilities formerly associated with ports. Revitalization in other hand has no precise definition but embraces a complex field of changing uses, regeneration and rejuvenation, remodeling and redesign, at the intersection of diverse interests that are connected to the interface of the city and the port.

It is significant that port cities in the past had become an icon of the city where they reflected the success of the city and their origin; known as the "waterfront city." The development of waterfront city grew as the development trend of the city became that found either in most developed or developing countries. This kind of development evolution needed various measures to make the area sustainable, starting with the conservation and revitalization work to the sea reclamation (Martono, 2009). The idea of development "waterfront city" was originally innovated from the United States, which produces an approach to the coastal development or the old town as part of the elaboration of the city. A significant example would be the development of the urban city of Baltimore, to address the overall decline experienced by the major cities due to economic turmoil in the 1970s.

According to Martono (2009), cities in the United States experienced the "collapse" (deterioration) which had become a general concern at that time. Baltimore was among cities that had suffered from the decline. From this town, the concept of coastal development was born which was recognized as a strategic solution to the terrible collapse of the major cities in America. At that time, Baltimore had faced complex problems, which included the pitfalls of its economic growth. As a result, the city's poor infrastructure, especially the old town offered nothing to attract better life, in comparison with that of the "new town" provided as an option. The occurrence of large-scale migration of the populace from the old city to the new one had somehow been expected. In later years, the emergence of "the Blacks" community had filled in every corner of the old town leading to increased crime, decreased the quality of life which had terribly scarred the old town as the decline continued and exacerbated. The city administration at that time showed a continued inability to overcome the situation of regression (Martono, 2009).

James Rouse, who resembled the nationalists, came forward with the idea of development as a solution. Rouse's vision of the adoption of the city government finally yielded results in restoring the situation, a credible act which is regarded as a wonder in restoring an American city from economic turmoil. James Rouse's planning had later, further influenced the development of the town and its application was considered as a revolution in the development of the city. The success of Baltimore had become the model to be applied as a strategy of urban development of cities, easily labeled the "American model" serving as "the great showcases of urban revitalization" that the model can also be applied to other urban cities in the world. This event is the starting point of the revitalization of old urban areas disseminated in the mass media as a waterfront city development (Martono, 2009).

In the history of urban development, the waterfront city of Baltimore, in connection with a city that is developed and considered to be the parent city, has flourished as a major city today. Some examples of the old city which had been developed as coastal cities known to undergo a lift to new cities, are the old city in the Baltimore Inner Harbor, the old city Faneuil Hall in Boston, London Dockland London, the old town of Darling Harbor in Sydney Australia, Aloha Tower in Hawaii USA, Boat and Clarke Quay in Singapore, Port Vell in Barcelona, Minato Mirai 21 in Yokohama, the coastal city of Cape Town, Dubai and the Sunda Kelapa, Jakarta and The Pantura Jakarta. The growth of the economy will increase the reputation of the country towns. Goodwin (1999) stated that within the context of sustainable urban development policy, waterfront restructuring or otherwise called in the literature waterfront 'redevelopment,' 'regeneration' or 'rehabilitation.' Nowadays, waterfront redevelopment is a global trend, and thousands of schemes are being carried out in a large metropolis, medium sized cities and even small town all over the world (Stella, 2013).

2.8   Cities' Urban Design

The term urban design often used differently by different groups in a different situation. The attentions to the subject and the increasing number of academics and professionals who are involved in urban design have brought the subject to the edge, for a clearer understanding of what they do. The signs of the need for a precise definition are still doubted. An example is a recent attempt which after reviewing some definition of urban design, concludes that finding "a short, clear definition…simply is not possible" (Rowley, 1994: 195). Instead, Rowley suggested we should focus on the substance, motives, methods and roles of urban design.

The term urban design came into currency in North America in the late 1950s, replacing and superseding the more traditional, narrower and somewhat outmoded term 'civic design'. Typified by the City Beautiful Movement, the latter was associated with a highly artistic and physical (visual and spatial) approach to urban design, focusing on the design of major civic building such as city halls, opera houses and museums – and their relationship to open spaces. The contemporary urban design is more expensive than this. It is primarily concerned with the quality of the public realm (both physical and socio-cultural) – and the making of significant places for people to enjoy and use. (Carmona and Tiesdell, 2007)

Almost all definitions of urban design state that it has something to do with the public realm (public domain or public space) and the elements that define it. Among of the best statement is:

> *The Urban design draws together the many strands of place-making, environmental responsibility, social equity, and economic viability; for example – into the creation of places of beauty and identity. Urban design is derived from but transcends related matters such as planning and transportation policy, architectural design, development economics, landscape, and engineering. It draws these and other strands together. In*

summary, urban design is about creating a vision for an area and the deploying of the skills and resources to realize that vision (Llewellyn-Davies, 2000:12).

The last sentence is particularly important. Here is another statement:

Urban design should be taken to mean the relationship between different buildings; the relationship between buildings and streets, squares, parks and waterways and other spaces which make up the public domain…and the patterns of movement and activity are thereby established; in short, the complex relationships between the elements of built and unbuilt space (DoE, 1997: paragraph 14).

The new interest in urban design is a form of and contribution to the place making. Carmona et.al, (2003), for example, these authors defined urban design as the making of places for people. More precisely and realistically, they saw it as the process of making better places for people. Based on Carmona and Tiesdell (2007), the definition that asserted the importance of four themes – which urban design is for and about people; the significance of place; that the field of opportunity for urban designers is typically constrained and bounded by economic (market) and political (regulatory) forces; and the importance of the design as a process. The Urban design also refers to products or outcomes and various procedures. For example, variously a product (the design of the created environment), interventions into a process (e.g. a land and property or real estate – development process) and a process itself (i.e. design process).

Urban design is based on multi-disciplinary knowledge. Based on Trieb/Markelin (1976) in Poerbo (2001), urban design is a field of expertise that exists where city planners were ignoring the physical form of the city. Since 1930s city planners have focused on the social problem and not physical nature. According to Webster (2010), the urban design had existed since the Renaissance era and had various scales such as road, individual site, overall urban infrastructure project, and neighborhood. Meanwhile, based on research by Handy et.al, (2002), "Urban design" usually refers to the layout of the city and physical

elements within in, including both their arrangement and appearance and concern with the function and appeal of public spaces. The Urban design described as a teaching of built environment design disciplines help realize the individual and public needs in the urban area. Urban design produces space in several activities and also known as the human production of space (Childs, 2010). There is a trend to incorporate urban design as a boundary between architecture, urban planning or the difference between them (Koray, 1999). According to Poerbo (2001), urban design can be divided into the urban design process, urban design products, an aspect that must be considered in the urban design and the characteristics of the urban design. Urban design products consist of buildings, street furniture, and landscape, procedures of physical objects and human activity that form the environment. Meanwhile, urban design aspects can be divided into three-dimensional and non-visual aspect such as social, economy, politics and others. According to Behzadfar and Saneei (2012) in an urban design context, there are five dimensions; morphological dimension, social dimension, visual dimension, functional dimension and temporal dimension. (1) the morphological dimension is related to layout and the arrangement of urban form and space such as building structures, land uses, street pattern, physical and visual permeability, visual aesthetics and proportion; (2) the social dimensions are security, identity, safety and social justice; (3) the visual dimensions are visual proportion and aesthetic; (4) functional dimensions are vitality, resilience, hierarchy, security and diversity and; (5) the temporal dimensions are a sense of place, identity, and personalization.

From previous studies, urban design field involves several professions such as urban planner, architect, landscape architect, economist, social experts, and author. Urban designers are referred to people who make decisions that affect the quality of the urban environment, but only a small proportion of them claimed to be urban designers. There is

a continuum from 'knowing' to 'unknowing' urban designers (Carmona et.al, 2003: 15-16). 'Knowing' urban designers are typically the professionals employed or retained on account of their urban design expertise. 'Unknowing' urban designers are those who make urban design decisions without appreciating that this is what they are doing. This is not a distinction that necessarily reflects on the quality of outcomes (i.e. the product) – the outcome of each can be 'good' or 'bad.' Barnett (1982) argued that:

> *Today's city is not an accident. Its form is usually unintentional, but it is not accidental. It is the product of decisions made for single, separate purposes, whose interrelationships and side effects have not been fully considered. The design of the cities has been determined by engineers, surveyors, lawyers and investors, each making individual, rational decisions for rational reasons.* Barnett (1982:9)

Without conscious recognition of the qualities and additional value of good urban design, the creation and production of urban environments often occur by omission rather than explicit commission. Urban design's current status is based on a significant and growing body of theoretical writings that have their roots in critiques of post-1945 modernism and the urban development of the past and in particular, inset of classic texts dating from the very early 1960s from writers such as Kevin Lynch (1960), Jane Jacobs (1961) and Gordon Cullen (1961), and in another larger set dating from the late 1960s and 1970s including Ed Bacon (1967), Ian McHarg (1969), Christian Norberg-Schulz (1971), Robert Venturi et.al, (1972), Jan Gehl (1971), Colin Rowe and Fred Koetter (1978), Christopher Alexander (Alexander et.al, 1977; Alexander, 1979) and William Whyte (1980). The ideas and observations of these writers and others have been debated, criticized, tested, developed and extended by a wide range of theorists, practitioners and policy makers in the period up to the current day. The resulting urban design literature is extensive and growing, and constitutes the foundation for contemporary urban design policies and practices.

2.9   Urban Image Theory and Concept

The image of the city ranges from the national to regional levels of placement. The city image in the context of a country should have a clear picture because it is the primary reference of a country on the world map. The image of the city can explain to the global community the development of a country and reflect the civilization and culture that have been practiced by the society living in the city (Lynch, 1960).

The image of the capital city also tends to display the states of civilization and culture, such as Kota Bharu designed based on the rich local culture. The images of the city also play an important role to distinguish one capital from another, by displaying the regional characteristics that are unique in every state. The image of the original city refers to the civilization of a nation in creating the environment of comfort to live in, and this is well established among the residents and visitors of the city. It is designed for the efficient consolidation and optimum successful use of existing sources that include nature, activities, and practices of the local people to encourage innovative and creative ideas.

The interpretation of image in the design of the built environment has focused on a broad scope. There are several definitions related to the urban image presented by some philosophers whose works are concentrated on urban planning. Based on Marius (2008), urban image refers to the 'mental' city, the 'inner' city, the human perception of the physical city; it is a 'barometer' of urban habitat emphasizing disunities in the current method of space organization, it outlines the cities mental maps, and it can become a vital instrument in incising the decision to intervene in the present model of urban planning and reorienting it.

Lynch (1960), has defined the image of the city as a bilateral process between the observers by nature. Images can be categorized into three components, namely the identity, structure, and purpose. An image of the work requires an identity which has a different character from another. Also, the image must include the content or the spatial pattern of the relationship between the observer and the object to other objects. Finally, the object must have a meaning to the observer, whether practical or emotional.

Amos Rapoport (1977) in his book Human Aspects of Urban Form; Towards a Man-Environment Approach to Urban Form and Design, makes clear that the individual city images are easily translated into the minds of the plan or 'mental mapping.' It shows each person's attitude of the city and the methods on how they see, feel, and remember their surrounding areas. This plan translates the image of a city better, with the use of structure and use of lines and angles in making observations. From here, he concludes that the appreciation of the city image is heavily influenced by the basic structure, lines, and angles in urban design.

The concept of the urban image used by Bently (1985), is the approach used to understand the environment, in line with the objective contained in environmental conferences in implementing the concept of the urban image. Understanding the environment is an effective method of planning which highlights the ideas, aspects, and impacts on social and political aspects, as well as incorporates environmental features contained therein, namely:

i) 'Permeability' which is the sense of accessibility to allow or not allow people to pass through, to get to a place or put in other words, where people can go and where they cannot go.

ii)   *'Variety'* indicates the range of use to the public *(range of uses for people)*.

iii)   *'Legibility'* marks the extent to which the consumers understand and know the opportunities that are offered.

iv)   The strength or 'robustness' that influences the degree of ability to exploit a public place.

v)   'Visual' means how the people visualize the area and know the options available to them.

vi)   *'Richness'* is a sensory experience where one uses and appreciates the feelings towards the urban environment.

Several elements make up an image of urban areas, and in the current study of urban elements, we are looking at old shop buildings, street furniture, and landscaping. These features are reviewed to demonstrate the importance of improvements required by these items to enhance the image of the city in question. Elements that have been discussed are the basic framework for forming an image of the city. Each of the elements needs to have a relationship with each other to determine and create a fresher air of the environment for healthy and comfortable surroundings. The relationship between each of the elements, the attraction, and competition prevalent in a city that undergoes a transformation is amazing to watch. Without such connection, one of the elements would weaken the image of the other elements (Lynch, 1960). For instance, the landmarks of an area may be decreased if the area is too obvious to the outside world, or misleading because the route is too complicated.

The word mentioned above should be given serious consideration, where attention should not be placed on one element only, and any other elements dismissed, but the elements need to be seen as a whole. A city should be viewed as a whole, not as a single entity on

which the urban image is to be created. Hence, each element mentioned earlier should be easily understood and readable or legible, as well as not being oppressive on the other elements. Observation on the overall elements of a city is the beginning of an understanding of an urban image. After understanding the whole picture only then one can learn and fully utilize the city.

The image of the environment is the result of a two-way process between the observations and the environment. The role of the environment is present as difference and relevance, while observations also indicate the appropriateness to it. This image is developed by what is seen and noted by observers (Lynch, 1960). So, an image would be seen differently from the eyes of one observer to those of another. A network image may arise in various ways, in which it is structured or specialized and have a raw and organizational identity. For example, an object accessed the observer may already know the first time. Also, a new object may be found to have an active structure or identity due to the physical properties which produce their patterns.

As a manipulation of the physical environment, urban planning is more interested in the interaction between the external substances that will portray the images of the federal authorities. The different environment is against the formation of the image or can facilitate the formation of a right image. Any form, have a high or low potential to generate a strong image among different observers. Although each is to create his image, there is an agreement between the members of the same group. This is an image that displays the agreement between the members, which interests the urban planners to create an environment that can be together be utilized and enjoyed by the community. (Lynch, 1960)

2.10 Waterfront City or Towns

The word meaning of waterfront get through as "*the part of a town or city adjoining a river, lake, harbor, etc*." in the Oxford American Dictionary of Current English in English Dictionaries and Thesauruses (2004). Based on Desfor and Jorgensen (2004), the location of high-income households and high-end urban facilities frequently took place at the waterfront. They also stated of elite-dominated decision-making mechanisms, social polarization and spatial fragmentation (Tasan-Kok, 2009; Wakefield, 2007; Desfor and Jorgensen, 2004; Jacobs, 2004; Swyngedouw et.al, 2002).

However, based on Morrenti (2008), the word "waterfront" means "*the urban area in direct contact with water.*" Azlina Yassin et.al, (2010) indicated that waterfront is defined as the field of interaction between urban development and the water. Hou (2009), described the waterfront area as the conflux area of water and land. Although the vocabulary of the waterfront is evident, also it has been met using some different words instead of the term waterfront in the literature. Hoyle (2002), Hussein (2006); Mann (1973), Tunbridge and Ashworh, (1992), and Watson (1986), these words are a city port, harbor front, riverside, river edge, water edge and riverfront (Dong, 2004; Azlina Yassin et.al, 2012).

Breen and Rigby (1994), Sairinen and Kumpulainen (2006) and Morena (2011) imply the same thing with waterfront and urban waterfront. According to them, waterfront identifies the water's edge in cities and towns or urban area of all sizes. The water body may be "a river, lake, ocean, bay, creek or canal" or (e.g. in Shaziman et.al, 2010) artificial.

2.10.1 Urban Waterfronts Categories

According to Wrenn et.al, (1983), urban waterfronts have been distinguished five categories to a location with water. The explanation below the first two line symbolizes coastal cities and the latter three line symbolize inland ones (Al Ansari, 2009).

i)   Urban area located on peninsula,

ii)   Urban area located on a bay,

iii) Urban area located on banks of a river,

iv) Urban area located on banks of intersecting rivers,

v)   Urban area located on a large body of water.

Wrenn et.al, (1983), regardless of that separation, the shoreline shape is a significant influence on how the location of the city about the water impacts the city-water links. Cities which are located on peninsulas, headlands or small islands benefit from longer waterfronts at a short distance from the city center. The same could be said of cities located on the banks of intersecting rivers, estuaries and deltas. They have many great waterfronts, which increases the chance of public spaces located on the waterfront and also of these being connected to other hinterland public areas (Al Ansari, 2009).

Figure 2.2: Waterfront development.
Source: www.waterfrontNL.com

2.10.2 Waterfront Development

Dong (2004), indicated that the meaning of the waterfront development has different regarding understandings. Also, he/she emphasized that the content of waterfront development vary significantly on the characteristics of sites and cities. For example, in Japan urban waterfront development is one of the interrelated three water-related development concepts. Its location is between waterside and coastal development. Also, these growth levels are come up the different field. In here, waterfront development is evaluated urban planning field.

According to Morena (2011), "the urban waterfront development is widely regarded as a frontier on contemporary urban development, attracting investment and publicity. Sydney, London, Amsterdam, Hong Kong, Tokyo, Toronto, Osaka, Kobe, and Dublin are examples of cities developed through the waterfront development process". Azlina Yassin et.al, (2012), defined ideally as "a development directly fronting on water for any purposes and the water components can include river delta, coastal plains, wetlands, beached and dunes, lagoon, and other water features." Besides, the boundary of where the water and land meet is unclear, and this edge usually differs the laws and the administration of the countries.

Waterfront development can include any combination of different land uses, and waterfront projects can be new projects or redevelopments of existing waterfronts into new places. Some waterfront projects focus on industrial applications, such as industrial ports, and others focus on more recreational and tourism-oriented purposes. It is important that a diversity of uses can occur along a waterfront, bringing in as many interests as possible to the waterfront, but it is not necessary that a variety of applications occur within each project. For example, due to environmental, public safety and security reasons, it

may not be appropriate to locate a public park and residential neighborhood within the same zone as an industrial port. (see Figure 2.3)
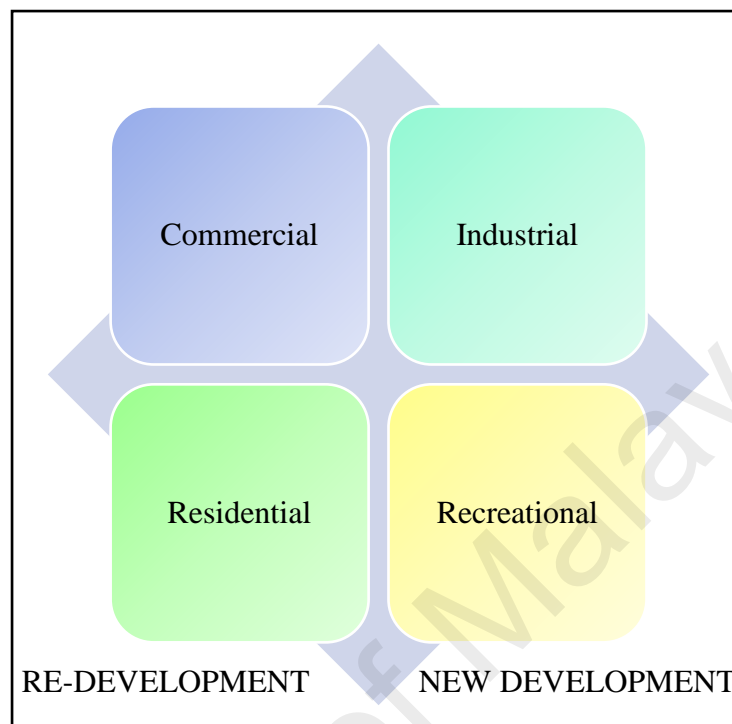
Figure 2.3: Combination of waterfront development.

Each site has its own environmental, political, resource, climatic, and social contexts - there is no one solution for all. A trained eye, an understanding of local and regional contexts, and years of experience can help determine different options for mixes of land uses, and the impacts they will have on their context.

Waterfronts are places to live, places to work, and places we enjoy recreating. People all over the world have been living with water for millennia, as a source of food, transportation, and harmony. In recent years, managing water has become a major political and social topic because of climatic events that have caught a lot of media attention. People have been questioning whether waterfront property should be promoted as a place to live, or whether giant walls should be built to protect individuals from advancing water levels anticipated by climate change experts.

Wrenn et.al, (1983), the waterfront development stimulated modern development in the cities. Therefore, understanding the historical milestone of waterfront development is important (Azlina Yassin et.al, 2010). This subject has been explained in the following topic. Adapted from Wrenn et.al, (1983), the typical pattern of waterfront development phases Wrenn et.al, (1983), indicated the historical evolution of waterfront into four periods. These are explained briefly as follows:

(1) The emergence of Waterfront Cities; the early American settlements, the waterfront, and the city, were directly contacted. Waters plays an essential role in trade activity and water transportation. Settlements were established, and European immigrant colonies arrived. The movement of production and people is provided between the two continents by sea route. A settlement's waterfront served to link the necessities of Europe with a familiar and predictable environment (Zhang, 2002; Akköse, 2007; Azlina Yassin et.al, 2010). These settlements were established around a port with safe harbor suitable for cargo and passenger ships. At this time, the waterfront has only a few trails converging at a jetty. After, a street pattern was slowly installed. In this period, a larger wood pier was usually established for the ship. Also, buildings began to develop on the street pattern. Though the rapid growth and development, the settlement still connect with the waterfront a shoreline road (Akköse, 2007; Wrenn et.al, 1983).

(2) The growth of Waterfronts; the first period of ports has converted contain many functions ports with an increase of economic activities. At this time, the settlement became a city, and maritime trade stimulated urban development. The shoreline road turned into a busy street providing services, supplies, and office space for commercial activities. The waterfronts became more important state and commerce

escalated with the use of steamships. Warehouses were constructed along the waterfront, and these rows of stores blocked the water's edge from the street. Also, in the previous period used of wooden piers replace by bigger docks made of stone and fill material. By filling out into the water to expand docking and storage facilities. The rapid development waterfronts as a port facility caused the formation of a port authority for managing the port activities (Akköse, 2007; Wrenn et.al, 1983). At this period, the railroad was introduced as a new mode of transportation. This required some space from the waterfront to service docks and install tracks. As a result of this change effectively severed the central city from the waterfront. Also, the waterfront became increasingly congested. Since 1930's, elevated highways and interstate freeways were built the shoreline to decrease this congestion. Offices and stores along the old shoreline road were converted to warehouses (Wrenn et.al, 1983; Zhang, 2002). At this time, transportation and industry become the only use of the waterfront. Besides, in the previous period contact directly with water is lost as the construction of warehouses; railway and highway create a barrier to public access. In the meantime, the waterfront environment deteriorated because of the industrial pollution. The water became dirty, and the waterfront began to lose its natural attraction to many urban residents. (Wrenn et.al, 1983; Letourneur, 1993).

(3) Deterioration of Waterfronts; Rafferty and Holst (2004), until World War II, the loading-offloading activities of the ship were carried out in an extended time in port areas. After the War, the amount of load and speed of the loading-offloading increased with the development of containerization technology (Akköse, 2007). Zhang (2002), the old port areas were too constricted for modern container ships and equipment to maneuver easily, also Rafferty and Holst (2004), as cited

in Akköse (2007) water depth was not enough for approaching the ships. Millspaugh (2001), after World War II, as a result of developments in the maritime industry, thereby growing port activities started to need new areas (Akköse, 2007). Thus, port activities moved to outside the city. So, the old ports lost the role as the transportation and industry center. With the construction of highways mostly changed the transportation patterns and this contributed to being abandoned the waterfronts areas. Also, people preferred the highways to railroads because of their freedom of choice. Due to fewer people chose railroad, the waterfront became even deteriorated (Zhang, 2002). Besides these changes, increasing public interest in pollution contributed to the waterfronts demise. With the introduction of stricter air and water pollution controls, manufacturers began to leave the city. As a result, many ports fell into disuse. Also, the railroads suffered because of the decline of manufacturing plants and disinvestment. Railroad yards on the waterfront were neglected. The waterfront virtually became an empty, inaccessible and unsafe area, further separating the urban core from the water (Zhang, 2002; Wrenn et.al, 1983).

(4)   The rediscovery of Waterfronts; in the waterfront areas of abandoned old ports was available several problems. The first of these was caused pollution by the port and industrial activities. The second issue should be an obsolete infrastructure of the industrial areas which is surrounded by abandoned warehouses and other port structures. Also, the railroad and the highway broke off the link between the urban center and waterfront area and also prevented interaction each other (Akköse, 2007). Also, in the 1960's, people became more concerned about environmental-city health and the misuse of natural resources. Locals wanted to recover the aesthetic scenery of the waterfront which had been neglected for years. As a result, the port's commercial failure caused a revolution of waterfronts by private

developers and city governments (Zhang, 2002). So, U.S. Department of Commerce, NOAA and OCZM (1980), it was at this time that an opportunity exists for the public use and a mix of recreational, residential, and commercial uses were developed. The lost intimate connection was provided again by the city and its waterfront. In the meantime, a new port to respond to new technology was established outside the city where space was plentiful (Wrenn et.al, 1983; Letourneur, 1993). Waterfronts vary depending on many interrelated factors. These are a city's history and size, its location, land structure and climate, the diversity of water-related uses and city's management status. For this reasons, each waterfront may be some variance in the typical waterfront evolution pattern. However, one fact is common; urban waterfronts dramatically changed because of the influence of social and technology factors. Finally, much more area has been regained public use and access (Wrenn et.al, 1983; Zhang, 2002).

2.10.3 Accessibility of Waterfront Development

Waterfront plans are of vital importance to waterfront developments. According to Acosta (1990), while the program makes, three elements are considered: public access, walkways and open spaces; urban design and landscaping; and land use along the river's edge (Dong, 2004). The basis of waterfront revitalization is integrated with water and city. So, public access and open spaces more necessary for successful development of urban waterfront areas.

Accessibility of the water can be evaluated three formats: City-waterfront connectivity, inter-waterfront zone continuity, and waterfront-water connectivity (refer Figure 2.4). Acosta (1990) stated urban design guidelines could protect the public interest by spelling out basic standards for private development. Also, criteria that are given out for urban

design guidelines should be simple and stated; fully illustrated; remain consistent over time. Adair et.al, (1999) maintained that a master plan approach is essential so that investors can realize the long-term commitment to a particular scheme (Dong, 2004).
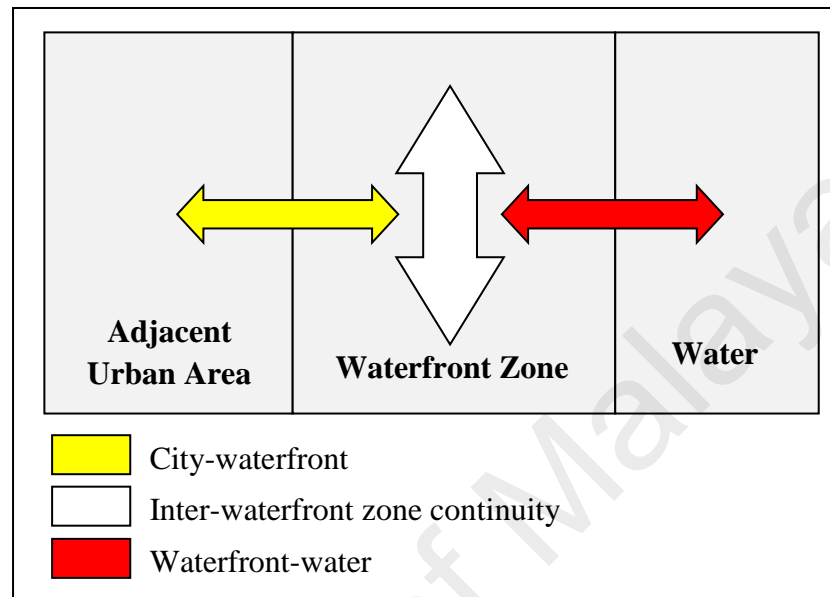
Figure 2.4: Accessibility of the water.
Source: Acosta, (1990)

2.11   Theoretical Framework

The study of place attachment include aspects of physical, perceptual, psychological and socio-cultural dimension. The place is an element of physical activities and concepts held by the user, and these components are related in a place of experience. Urban design has emphasized the relationship between this dimension in research on the perception of the location and the quality of place in the city. Place attachment describes personal attachment and place for them and the interdependence between those who are influenced by the characteristics of the background and the user. Measuring the level of engagement and the introduction of feature differences can explain the relationship between meaning and perception of the place through the influence. Waterfront is a place to have a substantial impact on the characteristics of the city center and serves as a contributor to the life of the city. Research on place attachment in this context is important in

63

maintaining the sense of place and improve the user prosperity who have an attachment to the place. Based on the reference to the theoretical framework established in this chapter, Figure 2.5 shows the framework for the study and research relationship in the study.
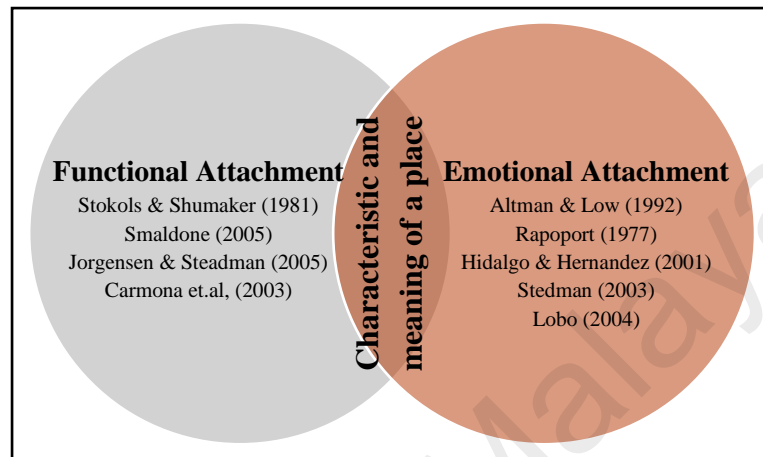
Figure 2.5: Theoretical framework

2.12   Conclusion

As we see today, in term of urban design is still a lack of clarity in its definition due to its wider range of activities and elements. With this ambiguity, broader definition and term needed to deal. Furthermore, urban designers are interested in this process and its product. Through this general definition, we can encompass the range of interests and involvements of urban design in its macro and micro scale, visual aspect, process, and product, or spatial aspects dimensions. Therefore, urban design can be defined as the multidisciplinary activities in shaping and managing urban environments or spaces. With the knowledge, technical issues, social and expressive concerns, urban designers use both visual and verbal communication in all scale of the urban socio-spatial continuum.

Urban designs are shaped not only by design ideas but also by public and private sector marketing decisions and sources of financing. The changes of urban design nature not

only on ideologies term but also in capital markets. Interest in urban design has emerged. It is a concern for making places and improving the quality of the environment has attracted support from unexpected quarters (Cuthbert, 1996). In a social world which 'expert-systems' have found crucial importance (Beck, Giddens and Lash, 1994), urban design has emerged as a critique of those expert-systems involved in shaping urban environments. A clearer understanding of urban design beneficial in showing directions in which both practice and research could develop.

In conclusion to this case study review, it can be derived that different waterfronts development have their similarities regarding their architecture and functions. However, sometimes these aspects cannot be said to be right or wrong just because some waterfronts have certain aspects that others do not have, due to certain factors or reasons. For example, if we look at the Singapore Boat Quay, the luxurious style of architecture is not suitable to be applied to the Dock even to the Batu Maung Bayan Bay Yacht Club at Penang. The investment of money on the revitalization waterfront of this type may be profitable, but if the same thing is applied to another waterfront, the implications could be different or even worse. However, with proper consideration, the waterfronts which are to be developed should have its use and functions reviewed beforehand before the project is undertaken.

CHAPTER 3: CHARACTERISTICS OF WATERFRONT IN MALAYSIA

3.1 Introduction

This chapter is divided into three parts. The first part describes the redevelopment of the river in Malaysia. The second part describes the evolution of the development riverbank in Malaysia, and the final section explains the characteristics of the river/sea in cities, especially in Malaysia.

3.2 The Riverbanks Development in Malaysia

Based on the history of Malaya (Malaysia), the river has played a major role as a center of community life. Therefore, the need for the establishment of the river has attracted the earliest Malay civilization with traditional settlements, trade, and social activities outside of town along the main river corridor of Peninsular Malaysia and Borneo. The importance of the river corridor continues to grow physically, economic and social in some of the Malay Archipelago during the advent of Islam in the late 13th century (Weng, 2005). River corridors have become a feature of some early Malay Sultanate and the urban landscape, because of their physical, ecological, cultural values and economics. The beginning of the dominance of the West and the East starting from the Portuguese, Dutch, British and Japanese in Peninsular Malaysia for nearly 445 years (Weng, 2005) slowly changing consumption patterns and the development of river corridor when modern transport such as road and railway have been introduced. At present, Malaysia is developing rapidly than rural economies such as agriculture and mining. Urbanization and industrial transformation have taken place rapidly over the past three decades and resulted in increased infrastructure of roads, railways, and highways.

This increase implies a disconnection several major cities in Malaysia with their rivers. The rapid transformation structure of the river, as well as urbanization, has led to a deterioration in the relationship between local communities and the city river (Weng, 2005). The local public agencies, environmentalists, architects and urban planners have recognized the need and likely to take positive action that is designed to combine the needs of the development of the river corridor Malaysia (Weng, 2005). The aims to preserve life more secure and comfortable. Urban river corridors have been cleared and returned the water quality and upgraded to a recreational and tourist destination. This condition is more prominent, especially in some cities in Malaysia where the river became part of the cities such as the Sarawak River in Kuching and Dinding River in Lumut. This amendment is inspired from projects riverbank redevelopment of the famous and successful before in North America such as the Port of Baltimore, the renewal of Toronto Harbor and St. Riverfront Antonio in Texas.

River corridors in Malaysia are important as a strategic area linearly along the river that flows and linking local communities with the resources of the river (Weng, 2005). At this time, no specific interpretation or law to determine the river corridor in the Malaysian context. However, there is a brief description of the River Bank Development Guidelines are enforced by the *Jabatan Pengaliran dan Saliran* (JPS), where the river corridor along the river, including areas 50 meters outside the reserve river on both riverbanks (JPS, 1996). This reserve river is a strip of land that lies between the two riverbanks channel and gazette under Section 62 of the Land Code. Typically, planning and development for the space requirements of the river corridor need to be done based on the River Bank Development Guidelines drafted by JPS. These guidelines are followed in all the redevelopment project of the river.

3.3   Evolution Riverbank in Malaysia

Population growth, economy, urbanization and improvements in technology have transformed the economy from an agricultural economy to an industrial economy. In addition to the contribution to the movement of the shipping industry to new port facilities elsewhere. This transformation reflects the efforts to establish an independent urban development in the 21st century. After experiencing urbanization and modernization, the current pattern of development of the riverbanks in Malaysia has changed and the focus more on the development of the mixed-use and recreation by combining the culture and history of Malaysia. It is necessary to understand the development of the riverbanks in the city. According to Yassin, Eves & McDonagh (2010), describes the events of historical importance in the development of riverbanks distributed into four (4) phases:

i)   The First Phase, During Colonial Rule (1887-1956)

River transport is the primary mode of trade and transport. The growth of the riverside communities started appearing port cities such as Bandar Kuching and Bandar Lumut. Where both the city's port is one of the earliest cities in Malaysia. Related business activities are growing by the river make the river as a focal point. During this time, there has been relocating people, especially the Chinese into "new villages" in the emergency period (1948-1960).

ii)   The Second Phase, After Independence (1957-1969)

Development continued at this point on the riverbanks and the establishment of the perception of the river as a corridor open public space. However, the British government began to separate early Malaysians into different groups (Malays placed in rural areas, Chinese in urban areas and Indian in the estate) (Yassin, et. al., 2010). Another strategy to support the transformation of the rural sector in Malaysia is the "agriculture reform"

(Arshad & Shamsudin, 1997). Agricultural reform strategy has multiple inputs and institutions. Major reforms are implemented in Malaysia agricultural land development and settlement is made with the development of in-situ methods. For example, Malaysia's second Prime Minister, the late Tun Razak led to the idea of FELDA (Federal Land Development Authority) to redistribute rural communities. FELDA was established on July 1, 1956, after the enforcement of the Land Development Ordinance in 1956 mainly to support the poor and landless, especially for the Malay races. After 50 years of development, FELDA scheme is a scheme of the most successful and become a leader in the agricultural industry. As a result, most of the population of the riverbanks moved to urban areas under the relocation scheme. Now, the population began to adapt to urbanization and began to migrate to urban areas.

iii)   The Third Phase, the Development of the Industrial Era (1970-1997)

Reconstituted cities and the reconstruction of rural areas, urbanization and upgrading the transportation system to accommodate trade has led to the deterioration of the riverbank. The introduction of the New Economic Policy by the government has been encouraging the movement of industrial production in Malaysia. As a result lack of confidence on the river, have led to permanent buildings and traditional settlements along the riverbank with the increasingly polluted rivers.

iv)   The Fourth Phase, the Modernization, and Vision of 2020 (2000-present)

Starting from the late 1990s, Malaysia shifted to the development of manufacturing technology and industry in urban areas. Increase employment opportunities and facilities available in urban areas increase the population up to 62 percent. Urban sprawl that occurred caused the government to begin development of urban areas, especially the development of the city with the river for two reasons, namely: (1) development and urban

renewal; (2) the revitalization of the city. After a few years, the coastal areas became popular as a recreational center. However, congestion in urban areas causing urban residents started moving into small urban areas (border of town) including the river area for privacy. It started a new pattern of development of the waterfront in Malaysia. Now, the development of the waterfront become a new trend in the development of national and popular among developers with emphasis on projects related to the construction of housing and mixed development.

After experiencing rapid development and urbanization over the years, some states in Malaysia start expanding their areas for future development. The State of Sarawak has initiated the development of this type. Sarawak riverbank has become a waterfront development in Malaysia and turned into a benchmark for the whole of Malaysia. This practice indicates a good starting point on how the government maintains and preserve precious natural resources. Waterfront development pattern in Malaysia nowadays focuses more on the use of recreational or public consumption and mixed use development. Most of the waterfront development project is inspired from abroad such as Sydney Harbour, Australia; Marina Bay, Singapore; and others.

3.4   Characteristics of Riverbanks in Malaysian Cities

Cities that are built next to the riverbanks become one of the key features that influence a cityscape, shape and the quality of its view. There are five characteristics of a city in Malaysia that are based on the geographical location of cities and the surroundings of an architectural nature that are close to water (Shuhana, 2008), which are; (i) river that flows through a city center that separates the city pattern into two parts; (ii) city that is built next to a river, where it acts as a side that defines the border to a city; (iii) city that faces an open sea; (iv) city that is defined by a river's estuary that goes through a city center and

faces an open sea and; (v) city that is built with a river's estuary which passes through a city center and faces a strait.

In the first case, the river becomes the element that separates the city into two distinctive parts, whether because of the characteristics or because of the dominant usage. In the cases of Kuala Lumpur, Ipoh and Alor Setar, Kangar and Johor Bahru, the presence of a river is quite dominant as it has a role that separates the characteristics of an old part that is historic in the city center and the new commercial area in the city. This type of city has a bridge that connects both sides of a river, which is a unique characteristic, especially in Malaysia, as a bridge is only perceived as its utility function. However, in European cities, a bridge has features that can give a feeling of togetherness.

The second city type can be characterized by the definition of a river as the city's border that acts as a strong border to the city's shape. Among the examples of such cities are Kuala Terengganu, Kuantan, Kota Bharu and Kuching. The unique characteristics of such cities are that they have the rural surroundings characteristic made of the fishermen's village, housing or mangrove swamp area. This creates a locality spirit because of the different characteristics between both riverbanks. Such symbiotic relationships exist between the rural area and city area at the riverbank while the jetty is built for the passenger boat as a transportation access that connects both areas. Buildings in cities like this usually have a second opening to the riverbank and roads.

The third characteristic type is cities that face the open sea such as Georgetown and Kota Kinabalu. The Georgetown City is unique as it is a city that was built as a harbor during the British's reign, with the harbor still being used up to this day. Hence, this city has a more active water bank around the harbor where the buildings line up across the beach.

Before the construction of the Penang Bridge that connects the island to the mainland, the main mode of transportation is the ferry.

These cities' scape is similar to other harbors or harbor cities in the world. There is also a fort called Fort Cornwallis that was built by the British next to the ocean side for defense purpose. Kota Kinabalu, for example, is a former harbor city that was built facing the South China Sea. The waterfront area gives a unique characteristic to a city, with the market located by the waterside that contributes to a feeling of togetherness. A promenade with several recreation facilities and past time activities that are built on the beach gives direct access to the beach. Such backdrop also provides several different distinctive opinions, due to the simplicity of a city center's architectural design that is made from the road pattern and city block.

The fourth type is a city that is built at the river's estuary facing the open sea. The only main city suitable to be in this category is Malacca. The unique characteristic of this city is that it faces two different body of water that has its characteristics. Shuhana (2008) found that Malacca's location, being at the river's estuary that flows to the Malacca Straits makes it the most famous river's characteristic that gives a feeling of togetherness in the city. The river that is used as a source of living in the past, as well as several buildings, can be seen since the colonial times. Some of these buildings that are used have an opening at the front when the river acts as the main transportation system and an opening at the back when the road's construction is now in line with the river.

The final type is when the location of a city is other than the one that is located next to the river's estuary; the city also faces a strait that has similar characteristics as a wide river. The only main city in this category is Johor Bahru. Johor Bahru can be seen as

unique due to the presence of a river and the Tebrau Strait that becomes the city's sphere. The neighboring view of Singapore that is on the other side of the city center gives a unique and different effect compared to other cities in Malaysia. The river that flows through the city center is in parallel with the main roads that place the shopping complex that gives a dominant function in the city center. It also separates the city center into two parts. The old city area with the traditional shop house and organic patterns located at one corner of the river, while the other corner is the new commercial district with the commercial architecture that is more contemporary with the grid patterned road.

3.5 Examples Waterfronts Development in Malaysia.

Each state in Malaysia has the potential to develop a successful waterfront. This is because every state in Malaysia has a geographic location on the riverbanks and the sea. There are several examples of waterfronts development projects that have been developed in Malaysia. Among the projects are:

i) Malacca Riverbanks, Melaka

Malacca River in the center of Malacca town is the most famous river during the Malacca Sultanate from 1400-1511 and after that. This river has a history of its own because the left and right riverbanks is a trace of the municipality, settlements, burial, business, shipping, ports and others since hundreds of years ago. Its role as a mode of commercial transportation, administration, and international relations have been developing the role of Malacca River as 'property environment' that many changes either regarding the physical and human environment (JPBD, 2002). Unplanned development on the riverbank identified to be negative impacts on the riverbank in an uncontrolled manner and polluted. Malacca River environment has practically no reserves along the riverbanks. Construction of houses and shops along the river have led invasion/pollution into the

river. In the year 2000, the Malacca River suffered severe setbacks, the river became shallow and the river environment filled with sewage and waste water quality deterioration (JPBD, 2002).

As a result of this, in 2002 the authorities Malacca Historical City Council (MBMB) The State Government has taken the initiative to carry out work on the conservation and beautification of Malacca River to improve the state's economy. Cleaning and conservation of the Malacca River began recommended by the State in 2000 and beautify Malacca River project commenced in July 2002. The project is distributed into four phases and completed in early 2010. The objective of this project is to provide an open-air pedestrian stretch on both sides of the river approximately five kilometers from the river mouth. This action includes with a cleaning sewage that discharged into the river and taught the residents and local industry about the programs. It is believed that the new development program will not be effective if the behavior of long-time residents dispose of sewage into the river remains the case. Thus, the learning program is also carried out to the population (JPBD, 2002).

The master plan of the project is to allow the conservation of the riverbank. This project has the objective to maintain the architecture of the building along the river (JPBD, 2002). Although some have been demolished due to the age of the building that has transcended decades, some units are rebuilt to resemble the previous building. The architecture of the existing stores or warehouses and any additional retained cannot be done by the owner himself. No new component will be added to the project for commercial reasons. The project is considered as obligations to Malacca City, a form of "public architecture" for the community to enjoy. Therefore, care not only contain the values of existing but to encourage and promote these values. Cityscape conservation of rivers and existing

features are preferred. So, Malacca River conserved by natural and organic form, it makes project became special (JPBD, 2002).

Malacca riverbank is five kilometers starting from the estuary (Sungai Melaka Pavilion) until Kampung Morten and Taman Rempah. It includes the core zone and buffer zone area of Malacca Historical City. Beautification and conservation project Malacca River can improve the physical quality of the area. Accessibility to this area very easily passed from Jalan Laksamana, Jalan Kampung Pantai, Jalan Munshi Abdullah and Jalan Bunga Raya Pantai. The initial node promenade from the mouth of the Sungai Melaka Pavilion, which is an open space across the river and into the pier to browse the Malacca River with tour boat facility (river cruise). Near Sungai Melaka Pavilion is a replica of the Flor de La Mar, which became the focal point of this area. From this node, this area can be traced through the walkway on the riverbank. This route is available on both sides of the river and has an exquisite quality, but less user-friendly to people with disabilities (JPBD, 2002).

Promenade area bounded by the center with the building of houses on both sides of the riverbank. Some settlements on the banks connected through walkways commercial center of the city, indirectly it gives an opportunity to increase the intensity of activities. Some of the building blocks of the house on the riverbanks is used for commercial purposes, namely homestay and cafes for foreign tourists who support the tourism activity area. Some squares and parks near the riverbanks (Sungai Melaka Pavilion, Hang Tuah Pavilion, Taman Rempah, Taman Pirates) catalyze regional activities (JPBD, 2002).

ii) Iskandar Waterfront City, Danga Bay at Johor

The initial allocation of RM200 million to finance projects around the Iskandar Waterfront City, Danga Bay will be a retail development project and the most innovative vacation, modern and most beautiful in Malaysia. Projects to be developed by Iskandar Waterfront Holdings (IWH) is a precursor to the transformation initiative Johor Bahru and yet to be a destination business, commercial and world class tourism. Development project located between the most exciting development in Malaysia and Johor particularly, which has easy access by air, sea, and road as well as its unique position at the end of the peninsula and neighboring with Singapore (Junita Mat Rashid, Iskandar Ibrahim & Syed Ridzuwan Ismail, 2011).

An effort to redevelop areas is in line with the approach corridor to Central Government for giving new life to the old city with modern lifestyle. It not only involves preservation and conservation of heritage buildings, landscapes and creating green spaces, but also an introduction to the product properties and elements value to the existing. This involves planning the development of the terminal building of the yacht marina, fishing pier, office building, exhibition and convention center and residential areas. Among the projects scheduled for the area including the iconic entrance and cruise terminal in Tanjung Puteri, featuring Mediterranean fishing pier at Danga Bay, the center of historic and cultural heritage of Malaysia known as The Bund @ Danga Bay and the development of international offshore Rivera @ Danga Bay (Junita Mat Rashid, Iskandar Ibrahim & Syed Ridzuwan Ismail, 2011).

iii) Kuching Waterfront at Sarawak

This waterfront located along the streets of Jalan Tunku Abdul Rahman and the Main Bazaar, Kuching Waterfront situated along the riverbanks of Sarawak River, it also a focal point or gateway for many tourists visiting the Land of the Hornbills. Along the stretch of the waterfront, there are various choices of stalls to visit. Starting from Jalan Tunku Abdul Rahman, different food stalls could be found selling local dishes. Taking a stroll along the walkway, there are more interesting places to visit like the handicraft stalls. For even more choices, tourists can find at Main Bazaar Handicraft Market which can be located near the Visitor's Information Center and National Park Booking Office. It can easily identify by being the only two storey building along the street. Furthermore, the towers located facing the river of Sarawak. Nearby, tourists could find a small hall that has locals performing cultural dances and playing variety instruments from different ethnic origins within Sarawak (Anne B. & Dick R., 1996).

iv) Marina Bayan Bay Yacht Club at Pulau Pinang

The layout of the marina (placement of the ship) is curved and symmetrical which arouses a different kind of atmosphere and creates the look of luxury and friendliness and perhaps tranquility, especially with the cool-looking design of the water-retaining wall. This atmosphere is more attractive to see and especially when it simply stands out from the aerial view. The element that is in harmony with the environment is seen in general, to be able to increase the image and status of the waterfront (Penang Yacht Club, 1995).

v) Kuala Terengganu Waterfront

Kuala Terengganu Waterfront is known as KT waterfront. It is located along Hiliran road on Pulau Kambing. KT waterfront is a public park built on the river banks of Sungai Terengganu. The authority calls it a "new waterfront heritage city," a fusion of "new," as

it the Esplanade development, and "heritage," as in the historic shop houses of Chinatown and the busy central market of Pasar Payang. Before the development of Kuala Terengganu Waterfront, this area is the largest petrol station and a jetty Malaysian Fisheries Development Authority (LKIM) where fishers unload their catch and sell seafood for the local people. Due to the rapid development in the city of Kuala Terengganu, old buildings and narrow streets were replaced with new buildings. Kuala Terengganu Waterfront with two hectares area was built in mid-2003 and be completed in 2006. Kuala Terengganu Waterfront provides facilities for visitors such as car park, a clock tower, a toilet, a relaxation point, prayer room, and restaurants and so on. With only two kilometers from the city center and has an interesting landscape, it became a tourist attraction and a place of relaxation for the public. The area became a favorite of visitors and anglers on weekends, especially at night ("Kuala Terengganu Waterfront," 2011).

vi) Kota Kinabalu City Waterfront

Kota Kinabalu City Waterfront (KKCW) is an integrated waterfront revitalization master plan that is an essential element of the Sabah Development Corridor's (SDC) blueprint to transform Kota Kinabalu City into a premium tourist gateway and second home destination. KKCW is designed to offer luxurious shopping amenities and comfort lifestyle events amidst a resort-like living experience. Comprising an up-market lifestyle Waterfront Mall, a 365-room super luxurious Waterfront Hotel and 111 units of designer suites, KKCW will be significant in forming a golden tourism belt along the city's waterfront ("Kota Kinabalu City Waterfront," 2013). The entire development will be linked by a 2.1km Waterfront Boardwalk, one of the longest of it is kind in Asia, to convert the KK seascape into a symbol of a new international lifestyle.

Along with other SDC mega-projects, including the proposed Kinabalu International Convention Centre (KICC) located near Jesselton Point, KKCW will boost the Waterfront Boardwalk activity, providing vital economic integration for downtown businesses. The KKCW symbolize the hopes and dreams of all Sabahans and in particular the residents of KK who yearn for the elevation of their capital city into a revitalized urban neighborhood with resort lifestyle living. Consisting of a waterfront shopping mall, 5-star luxury hotel, resort homes, and a 1.2km boardwalk, the Kota Kinabalu City Waterfront is an integrated waterfront revitalization master plan to transform Kota Kinabalu into a premium tourist gateway and a premier second home destination ("Kota Kinabalu City Waterfront," 2013).

3.6   Conclusions

Despite the difficulties, each state in Malaysia has been transformed from an obscure trading area to a source of pride for their state. With the remarkable waterfront amenities and whole fabrics of historical architecture has increased the potential of the areas. The initial placement of the coastal has grown and thrived, transforming earlier settlement into a remarkable town. Here these lessons are reviewed, first regarding their general implications for waterfront revitalization thru history and second in the more accurate context of heritage related regeneration. Furthermore, the transformation gives changes to the town in term of economic, social, physical and environment.

CHAPTER 4: RESEARCH METHODOLOGY

4.1 Introduction

This section touches the methodology and research design used. At the beginning (4.1 to 4.3), describes the research methods approach to the study such as mixed method, the scope of research and the research process. The second part (4.4 to 4.8) discusses the research methods used, survey planning, survey techniques and procedures for data collection. In the end, (4.9 to 4.11) describes the reliability and validity, technical approach and conclusions.

4.2 The Research Methods

The direction of this research is to identify the place attachment and the factors that influence it. This research focuses on the identification of the characteristics that affect place attachment. There is a tendency in research using mixed method techniques on urban design because it often seeks the aspect of multi-dimensional (Lynch, 1960; Yeung & Victor, 1996; Dolbani, 2000). Thus, a mixed strategy (quantitative and qualitative) is suitable for this research.

Mixed method (Creswell, 1994) are used to test the place attachment between people with a place. This model provides the opportunity for each method to maximize the strengths and minimize the weaknesses of each program of research (Groat & Wang, 2002). In this case, quantitative methods using questionnaires and surveys the characteristics of the city combined with qualitative methods using in-depth interview and observational methods to the area to investigate the phenomenon.

4.3   The Scope of Research

This study investigated the place attachment between the places and links of the characteristics of the case study. Descriptive and theoretical approaches (Ziesel, 1980) to explain the relationship between users and the environment are used. This approach is explained and measured as precisely as possible one or more characteristics and relationships in the group assigned. In this investigation, the factor influencing attachments such as; duration of use, familiarity, user roles, and culture and place changes are used as independent variables. Five important aspects of a place considered in this study; (1) the physical characteristics and space; (2) the characteristics of the user's personal and socio-cultural; (3) the use and activities; (4) form of place meaning and (5) attachments and factors that influence it. The human relationship with the environment is affected by many factors and can only be proven from the aspects related to the investigation and collectively. This aspect accordance with the issue because some of the causes that have the potential factors, the relationship between people, and the place are very varied and interconnected.

4.4   Research Process

The research process begins with setting the background study through identification of issues and formulates goals and objectives of the study based on a review of the literature and the issues relevant to the study. The scope determined when the information about the background obtained by the selected context. Inventory and initial observations on the location of the study were to describe the situation in general. Based on the suitable theory such as quantitative and qualitative theory (Creswell, 1994); descriptive and theoretical approaches (Ziesel, 1980); measuring place attachment (William et. al., 1995); dependence of place (Jorgensen & Stedman, 2005); conceptual and empirical place attachment (Hidalgo & Hernandez, 2001) and local issues, criteria,

and a number variable identified and prepared as a theoretical framework and methods for research. The review process can be seen in Figure 4.1.
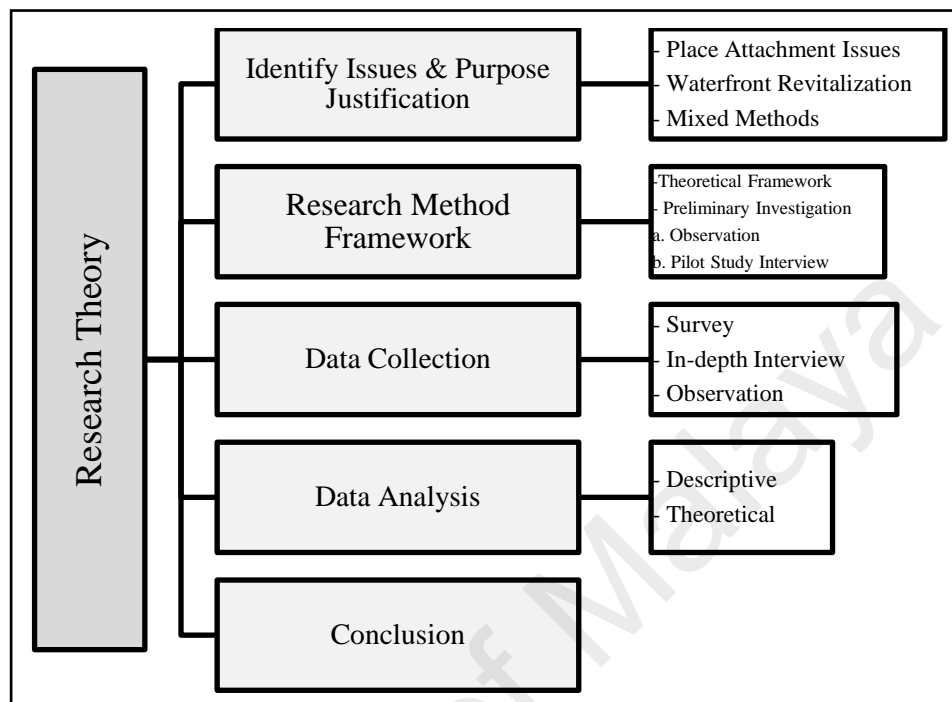
Figure 4.1: Research method process.

4.5   Selection of Research Methods

This part is divided into two parts; the first describes the research methods that have been used by the academic scholar correlate with place attachment to a place or area. The second part describes the research methods selected and utilized in this study. In the first part; there are two important aspects to be covered. The first aspect is to examine the form and level of attachment to a node or area. The second aspect of determining the factors that influence attachment and characteristics that correlate with the experience and perception of users on the selected places. Research apply by a researcher in reviewing aspects involved quantitative, qualitative and mixed methods.

The level of attachment to an area obtained from a variety of research relating to the practical aspect and function of experience in environments that are discussed in environmental research psychology, social psychology, and human geography. At this stage, some survey techniques such as mail, telephone and questionnaire used by researcher to represent the population as large as an attachment to the recreational environment (Williams, et. al, 1995), attachment of tourists to the riverbank destination and the sense of place of users on the riverbanks (Stedman, 2003). Research conducted only focus on the strength of attachment and not discussing the meaning and characteristics that affect the environment of attachment to the area. Lobo (2004) using a quantitative and qualitative approach involving interviews and observation techniques to create a questionnaire to measure the sense of place and the core factors in the context of community. Meanwhile, Gustafson (2001) used a qualitative approach through in-depth interview methods in the study of meaning in the context of public housing and further highlight the exploration in its approach.

None of the above mixing physical aspect with the emotional aspects of the human experience in identifying the characteristics and meaning of the place. The use of mixed methods to study the phenomenon and have an understanding of its relationship to other related aspects are detailed. The study was conducted by the method of integration by crossing the field of urban design and environmental psychology. Characteristics can be seen in places where the quality criteria in the design of the city derived from the theories of urban design.

In the second part; research methods that applied are described. Mixed approach was selected for use in this study where quantitative and qualitative methods of data acquisition strategy. These methods have their advantages and disadvantages. The

downside is the qualitative research cannot be generalized and quantitative research weakness cannot generate meaning (Wells, 2006). Every method and every type of data used either qualitative or quantitative advantage in their respective contributions to the study's findings. The data in this study obtained by using interviews, questionnaires and observations characteristics of the city.

The study began inductive in the categories of information that has been developed. Description of the case and its surroundings have been broken before another theme emerged and developed. Research using layering techniques to produce a variety of topics that followed this theme collection into the broader category (Cresswell, 1998). For example, to understand the meaning of the promenade by the user community, the first step is to check the expression of individual researcher informer against their experience before moving on to the phenomenon of multiple dimensions of meaning and influence. The study began by presenting the waterfront in the city, the physical characteristics and social significance, climate change, development and modifications as well as the effects of such changes. Primary data collected through questionnaires and interviews, then data obtained through the experiences and opinions of users. Observation of the characteristics of the case study is used as a corresponding method to produce a broader picture of the physical features of the area in support of a variety of different activities.

4.6   The Selection Criteria of the Study Area

Waterfronts in the center of Bandar Kuching and Bandar Lumut were chosen as the case study. This area has been selected based on physical characteristics, functions and socio-cultural. This area also has a waterfront promenade as public open space with a variety of activities and the following characteristics:

i. Among the pioneers of waterfront development project in Malaysia (Yassin et. al., 2010).

ii. Located in the center of town and close to the commercial and business center (Lang, 2005).

iii. Known as public open space to the city, which is on the riverbanks (Yassin et. al., 2010).

iv. Having three-phase transformation of riverbanks; success before the industrial age, the decline, and fall of the industrial and redevelopment/revitalization (Hazreena Hussien, 2006).

4.7   The Layout of the Survey

The purpose of the survey is to balance (generalize) from the sample to the population to explain the characteristics, attitudes or behavior of the population (Creswell, 1994). In this research, survey methods are suitable to be used based on the following reasons:

i. Focus research on the shape and the level of user's attachment to an open space in the waterfront promenade. The population of the various causes needs to choose the main users, are then collected and selected as a representative sample of a larger population. In this case, the probability sampling procedure was suitable to be convinced that the selection of user groups is an overview of the features of dominance in these areas (Creswell, 1994; Gustafson, 2001; Manzo, 2009).

ii. Some places are more attractive, likable and frequented visit by users than anywhere else. Research on the characteristics of each place can help explain the components of the substantial influence of place attachment. The various attachment that occurs from different groups involved in the main user of a place can be tested through the analysis of the findings (Carmona et. al., 2003).

iii. Measurement criteria based on the area's environment reacts, successful and a well-defined quality of urban design theory in either local or foreign (Carmona & Tiesdell, 2007).

iv. The main issues derived from the observation area and the pilot study (unstructured interviews) that provides information about user perception study on a selected places. The same technique is done by Dolbani (2000) in his study of user perception of public open space in the center of Kuala Lumpur for formulating the framework of a research concept.

v. The key issues and objectives are suitable to the characteristics and identity of the structure Kuching Waterfront and Lumut Waterfront.

Based on the findings of the pilot study (pilot survey) in Table 4.1, show that understanding, accessibility, vitality, transactions, diversity, uniqueness, comfort, safety and security are defined as key aspects. Then all these aspects formed as the independent variable of the study.

Table 4.1: Summary of initial perceptions about KW and LW based on independent interviews of the pilot study.

Early Perception Summary in KW and LW (N=20)	
Attention Scope	**The scope of concern arise**
Features Good accessibility (18), points of interest (15), water attractions (8), many visitors (11), one (10), vendor (9), products and goods (6), food / beverages (8), image (10), low price (12), the night market (4), shading (3), history (4), entertainment (5), cultural events (3), liveliness (8).	Diversity Choice Deal Liveliness Security Activity Features Social ability Vitality
Issues that arise Parking is inadequate (8), heat in open space (7), engaging in the rain (8), lack of shading trees (6), insecurity (5) of derelict buildings (6) less seating (3).	Transaction Security Comfort Public facilities Image Continuity

4.8   Surveys Technique and Data Collection Procedures

This section describes some of the techniques and research procedures to be adopted. There is three levels of data collection procedures, namely: (1) preparation of a theoretical framework; (2) pilot study (using the techniques of observation and interview) and; (3) the survey: questionnaires, interviews, and observations of specific areas (see figure 4.2). The next section describes the process and the issues that relate to the methods and conditions included in the measurement criteria, questionnaire design, and sampling strategies.

First phase	Intermediate phase	Final phase
•Sorting Framework Theory	•Observation Area •Independent Interviews •A pilot study	•Questionnaire •In-depth Interviews •Observation Area
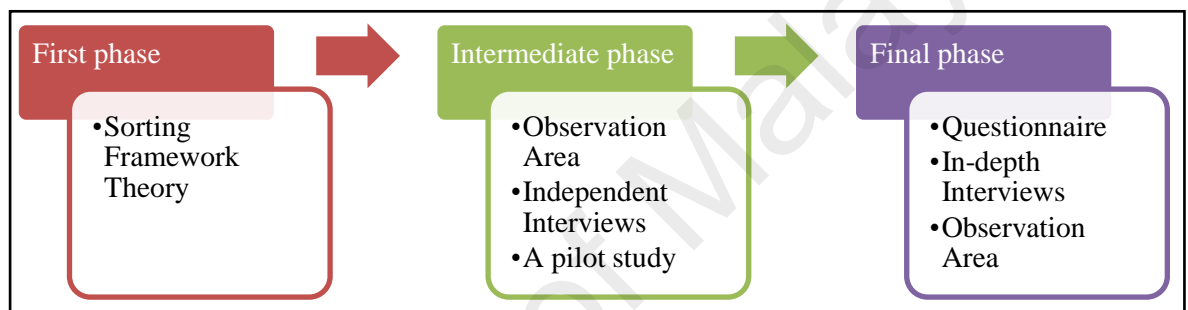
Figure 4.2: Procedures for data collection.

4.8.1   First Phase: Preparation of Theoretical Framework

The first stage involves extensive study critically and focus on literature research and defining the boundaries of theoretical research. It organizes an understanding of theories, concepts, and principles of the place, the place attachment, the character of place and place identity; from the experts view in the field of urban design, the revitalization of the city's, waterfronts, the environmental psychology and human geography (see Chapter 2). The principles and guidelines of a possible set of urban design and research are discussed to find the cause of the formation of a high quality and successful place in the city. Also, to find the facts about the characteristics and identity in the context of urban design. Secondary sources are from books, the internet,

journals, and thesis related to the study. Another source of printed material from the government, local newspapers, maps, photographs, charts and archival materials.

4.8.2   Intermediate Phase: Preliminary Survey

The second step in the process of data collection is early observations on the case studies, interviews, and questionnaires (pilot study). The preliminary investigation involves observation alone to a place in KW and LW to find patterns and physical activity, the most important aspects of open space and to experience the atmosphere there. Preliminary interviews conducted with respondents KW (10 respondents) and LW (10 respondents) to understand the feelings of spontaneous, motivation in that place and response, meaning and importance of the site for users. Respondents were selected randomly based on researcher trust and willingness of respondents to be involved. All conversations are recorded to know the user thoughts and how they react to issues that exist so that the format of the questionnaire and the interview can be arranged according to the respondent state. A summary of the initial perception of KW and LW based on preliminary interviews of the pilot study are described in Table 4.1.

A pilot study is essential to ensure a statistically to obtain the corresponding samples. The pilot study was also used to check understanding of respondents about the survey question, place attachment and the time taken by the respondent to answer the questionnaire. A pilot study was conducted in the study area, namely, in the case of KW and LW, a total of 20 moving and static users randomly participated in this survey. It takes approximately 10 to 15 minutes to use the respondents to answer the questionnaire. Obtained that very few respondents can solve or respond to questions open ended. Some weaknesses are identified, namely questionnaire on the format and layout, in which researcher found too many statements that have meaning and the same

question. Measuring 5-point Likert scale questionnaire used in the pilot study. On average respondents were more likely to answer 'agree' (the point 3). In the study of place and attachment to place, identify quality is a priority to reflect the user's perception of the place. In response to these issues, measuring 5-point Likert scale questionnaire was used at the end because it can provide an opportunity to place the attachment and meaning to emerge and be identified.

Time, location and comfort is an important aspect to consider in conducting the survey. It is understood that some respondents would prefer to talk rather than write. Therefore, there are some cases where the survey is fully carried out by the researcher. To ensure data integrity, the respondent must be guaranteed not affected by questions from the researcher. Questionnaire at the end of the survey varied according to the issues identified in the pilot study.

4.8.3 The Final Phase

The final phase includes questionnaires, interviews and field observations. The design of the final stage of the survey on these aspects was explained in detail in section 4.9 below.

4.9 The Final Research Design

4.9.1 Questionnaire

This section describes aspects-aspects in conducting the questionnaire.

i) Determine the Group of Respondents

Based on research by Dolbani (2000), there are seven types of users in an open space in the center of Kuala Lumpur, namely buyers, visitors, pedestrians, hawkers, street

musicians, students and users mixture. Dolbani (2000) then specify the users open space areas that are directly involved at the time of the survey as static users. This category is used in this research to determine the target user in the case study areas. To minimize the "complexity" in obtaining responses from various populations, sampling strategy used to create the cluster open space users by characteristics. Referring to the observations of researcher and existing research (Dolbani, 2000) of open space users, in general, can be clustered into two distinct groups:

a) The static users: those who regularly (daily) involved/dependent with/to the place for the purpose of seeking income/employment/education/residence and settlement on a area/premises/working space in connection with their roles (the shop owner, shopkeepers, salesman, office workers, residents, students)

b) Moving users: those who are not involved/dependent with/to the place for the purpose of seeking income/employment/education/residence and lies on the ground for the movement (buyer, customer).

The analysis also reviews the various forms and levels of attachment between user groups (static and moving users). Because of the diversity of open space and refers to the purpose of this research, the respondent focused on local users because the attachment experience to be part of some locations a stronger than tourists (Gifford, 1987), so as to represent the socio-cultural identity of the place.

ii) Determining the Appropriate Sample

In general, there are two kinds of samples of 'probability' and ' non-probability sample ' (De Vaus, 1991). Probability sample gives an equal chance to be selected as a sample of the population, while the non-probability sample does not give an equal chance to be chosen as a sample. The sample that selected should represent all existing population (De Vaus, 1991) until the sample is a better probability of producing a suitable sample.

In this research, the number of the population involved in open space is always changing and cannot be quantified on a regular basis. The population in the open space is heterogeneous with the various ages, races, and occupations. In circumstances case, the method of cluster sampling is to determine the most suitable sample for a sample of the same size. Each group represents the population (users), and each selected a representative sample corresponding KW and LW. In this group, respondents were attributable to static and moving users. This research is focusing on local users and tourists from Malaysian because the attachment experience of some locations is stronger than foreigners. Moving respondents randomly selected from users who are in an open space at the time study was conducted and identify areas surveyed. User static (such as a store owner, shopkeepers, and hawkers) are selected based on the interval of space on the ground floor open space (space shopping/stores and kiosks).

This research used the time interval techniques to collect data from the moving user. It is to reduce bias in the selection of respondents. In this process, the time interval of 25 minutes is given to the selection of the sample. The time given to sample to complete the survey is 15 minutes.

iii) Sampling Size

When the user is at a different level of intensity, the number of population in the open space is tough to count. Therefore, the principles that have been used by other researchers (Williams et. al., 1995; Stedman, 2003; Lobo, 2004; Gustafson, 2001) to be applied in this investigation. The sample size was based on the accuracy which is required sample, also the diversity that exists in the selected population (de Vaus, 1991). Based on the de Vaus (1991), the size of the sample population was derived from the sample taken is to deviate from accuracy, then the sample size in this study was taken based on the count. Based upon 5% sampling error at the 95% confidence level and the smallest subgroup must have at least 50-100 cases (de Vaus, 1991). Table 4.2 shows the number of 330 respondents had engaged in open space selected (KW and LW).

The study of the success criteria for the three traditional shopping street in Kuala Lumpur done by Shuhana (2004) using the 330 respondents randomly. Meanwhile, another study in the industrial city in Venezuela by Appleyard (1979) involving 300 people randomly from four housing schemes. Ryan (1997), in his study of attachment to the three natural areas in ANN Arbor, Michigan involving 328 park users (residents, visitors, and staff). Based on the cases above, the researcher chose to use the same formula to determine the size of the sampling.

Table 4.2: Various sampling at 95% confidence level.

Sampling error (5%)	Sampling size	Sampling error (5%)	Sampling size
1.0	10,000	5.5	330
1.5	4,500	6.0	277
2.0	2,500	6.5	237
2.5	1,600	7.0	204
3.0	1,100	7.5	178
3.5	816	8.0	156
4.0	625	8.5	138
4.5	494	9.0	123
5.0	400	9.5	110
		10.0	100

Sources: De Vaus (1991)

iv) Survey Schedule

Survey for KW and LW are done alternately, at the working time and including weekend to find out the activities pattern and intensity of user that dominate the open space at different times. Table 4.3 describes the survey schedule.

Table 4.3: Table systematically to survey the area.

Day	Date	Time
Working days Monday, Wednesday, Friday	4, 6 & 8 April 2016 11, 13 & 15 April 2016	8.00am - 1.00pm 1.00pm - 2.00pm 2.00pm - 8.00pm 8.00pm - 12.00pm
Weekend Saturday, Sunday	9 & 10 April 2016 16 & 17 April 2016	8.00 am - 12.00pm

v) Age Group

The age group between 18-24, 25-49, 50-64 and over 65 years are included in determining the level of maturity respondents in answering the questionnaire, and the dominant age group uses this place.

vi) Questionnaire Design

A questionnaire designed as a tool to record and identify the respondents to the level of attachment and characteristics perceptions of the place. The questionnaire is based on close and open-ended questions based on the variable rate determined. Close-ended questions designed to examine and measure several variables, while the open-ended questions give an opportunity to the respondents to share their thoughts on the subject beyond the scope provided by the researcher. The questionnaire is designed to obtain the desired information in four aspects:

a) The place engagement (purpose, intention, frequency of visits, the duration, the charm)

b) Place familiarity (features familiar, change and respond to the changes)

c) Place attachment (emotion and function)

d) Respondents profile (age, gender, occupation, ethnicity, income).

The survey consists of 34 questions of closed and open (refer to Appendix A: Table A2). The questionnaire divided into six component such as (1) use of place; (2) place familiarity; (3) emotional attachment; (4) functional attachment; (5) socio-culture attachment and; (6) user's detail. The multiple approaches to collecting information will be used to increase the wealth of research regarding both qualitative and quantitative data. Understand that the quantitative questionnaire data if not added to an understanding of researcher qualitative or using the qualitative data in other ways deliver unspecific results (Ziesel, 1980). It supports choice and comprehension for mixed methods approach used in this study.

vii) **Size and Measurement**

Responses to questions answered by respondents who describe the place attachment and characteristics were collected by five series of "Likert-scale" from 'strongly agree' to 'strongly disagree.' Questions are designed by indirect comparison at the same place before the respondents indicate approval or disapproval to the question. For example, to produce represents the difference quality compared to other places, a term that indicates the size and quality levels such as 'most,' 'very much,' 'more,' 'unique' and 'best' are used. If one of the respondents strongly agree with certain features of the place meant he/she was familiar with the place. It helps respondents naturally making comparisons when answering questions. The Likert-scale level that respondents selected are uses to measure levels of attachment and characteristics that significantly affect the attachment. Statement of the questionnaire can be found in Appendix A: Table A2.

Question are based on a questionnaire that was made by the researcher before. About attachments. To define the place of attachment, Likert-scaled series of questions designed to measure the dimensions of place attachment theory, the identity of the place, and a place to develop dependence. (William et. al, 1995; Jorgensen and Stedman, 2005; Hidalgo & Hernandez, 2001). But not many open-ended questions included in the questionnaire because of the research approach and adopted purely quantitative methods. In this study, the question was structured Likert-scaled with the open-ended questions of the questionnaire. This open-ended questions designed to gather information and opinions from respondents about the place characteristics which should be highlighted. This proves negative responses also debated in an open question despite questions framed as a positive statement. It is telling that the pattern is obtained based on the results of the method.

4.9.2 In-depth Interviews

In-depth interview method used to complement quantitative data. This technique is suitable for investigating the problems mentioned by respondents, helped inform the findings, open perspective or conflict and broaden the scope of the study (Creswell, 1994). It was done to reveal potential problems that arise which cannot be obtained in the questionnaire.

Typology of sampling strategy by Creswell (1994) is used to ensure the validity of the respondents. Sample identification process involved through; first, identify the population (users of open spaces), users are grouped into sub-groups based on the main criteria. Sampling was conducted where people with behavioral experience specially selected to allow broad comparisons can be made among different user groups. This strategy is suitable for KW and LW characterized by multi-cultural population collected

for various functions and purposes. The selection of sample for interviews conducted with more caution, it can be used to represent the selected user group (Yin, 1994). In determining the sample size for quantitative research, the in-depth interview sample should meet 20 to 40 respondents (Shuhana & Ahmad Basri, 1998).

For the final interview, respondents were selected based on a composite technique used by Lynch (1960) in a study about the image he made. Sample carefully prepared until it describes the characteristics of the main users involved with open space activities. In this study, the overall number of 36 sample consisted of representatives of the main user groups (static and moving) who participated in an in-depth interview. Face to face interviews using a semi-structured format are done carefully at 18 informants. To determine the level of attachment of users, the following criteria were considered in selecting respondents:

a) Engagement period (1-5 years, 5-10 years,10-20 years, 20 years and over)

b) Ethnic population (Malay, Chinese and Indian) as occupying a dominant group and visit the open space.

c) The frequency of visits (a minimum of once a month)

d) Familiarity (very familiar with this area)

e) Comfort (very comfortable with this area)

Table 4.4: Rational in selecting respondents.

Users	Ethnic		Engagement Period	
Hawkers Shop owner Shopkeeper Resident Shopper Tourist	A B C D E	Malay Chinese Indian Iban Foreigner	1 2 3 4 5	Below 1 year 1-5 years 5-10 years 10-20 years Over 20 years

During these interviews, questions are organized into a structured framework. The researcher took into account the experiences of respondents in a particular place and time along with the emotions associated with that location. This was done to show the attachment of the respondents on the site. Question investigations are needed to elucidate the specific response that can reveal the real factors that influence the type and degree of attachment to the characteristics of a particular place. (Refer Appendix A: Table A3 explained in-depth interview questions)

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During the interviews conducted, the researcher put himself as an outsider who is interested in collecting data about the subject. In certain circumstances, researcher acting as a participant (insider) (Relph, 1976) exploring the place and keen to share with the respondent. Flexibly structured interview designed for the researcher to record an unexpected dimension of the topic. Semi-structured interview themes as follows:

a)   Use: the reason using the areas.

b)   Familiarity: knowledge about the place and degree of understanding, memory.

c)   Emotional attachment: a sense of place, a sense of loyalty and evidence base.

d)   Functional attachment: exciting activities, feelings of comfort and satisfaction, opinion on the amendment or changes, proposed improvements.

e)   Social and culture attachment; attachment to the people, a sense of pride and belonging.

4.9.3 Observation Area

Observation area useful in obtaining firsthand experience with the research area, record information such as what happened and makes it possible to identify the aspects that can rarely be seen during observations and useful in revealing the topics may be

uncomfortable to be discussed by respondents (Creswell, 1994). Direct observations help the researcher to develop a more accurate interpretation of the object and subject of study. The target groups of respondents and waterfront promenade are observed. By observing these, researcher knows about how this place used.

This process also helps the researcher to compare the statements made by respondents at the questionnaires and interviews with the reality or the real agenda is seen from the characteristics of the place and usage patterns. The observation area is a qualitative and quantitative method, which means a lot of repeated observations to obtain coverage from each study area and a qualitative approach that means finding a good moment to reveal the different complexity of the case (Stake, 1995). In this process, researcher act as an observer (outsider) while documenting the activity pattern based on the photographic evidence and writing (personal notes and checklist).

Aspects to be considered before implementing observation is the location, target users, types of activities to be observed, the kinds of data that should be collected, schedule and framework observations. It is to ensure that systematic techniques and procedures for data collection can be done for a specified period by the researcher. Assisted by several times site visit, the researcher has developed a sense of familiarity, feeling and perception of the place.

The observation location of the open space includes the KW and LW. This area is defined as an open space which is used by pedestrians and public open space. Observations made during the normal working day, intensity users occupying open spaces connected with the opening of stores across the open space as well as formal work hours. There is an increase in the intensity of the user and open space activities

after office hours (after 4 pm) and during weekends and holidays. Therefore, the observation of user activities are scheduled on weekdays and also on weekends and special occasions (festivals) in the morning, afternoon, evening and night to record actual events and atmosphere of the place.

Periodic observation, photography (visual) and field notes are used as a technique for documenting the physical characteristics, types, and patterns of user activity. An extensive photographic record of what happened is done with digital cameras to record the evidence. The following describes the place to be observed and documented:

a) Physical characteristics and space

b) Users open space

c) Use and activities

- use on the ground floor

- type of activity and location (passive/active/personal/social)

- spaces used for major events (individual/collective)

- activity patterns (intensity/distribution/ time, hours)

d) Movement and intensity of pedestrian

e) Changes and increased open space

4.9.4   Evaluation Urban Characteristics

Evaluation of the researcher in place is necessary to determine the place for the fulfillment of its functions. It relates to the quality of a background that can affect the function of the attachment. These assessments facilitate the understanding and recognition to the achievement of the characteristics of the place other than public perception. This case uncovered, complement or reinforce other methods used in this

study. The same criteria set employed in the evaluation of characteristics of the city, namely: accessibility, understanding, vitality, diversity and choice, comfort, transaction, uniqueness, and safety. Indicators for each element of the assessment is built based on the literature (see Appendix A: Table A4). The evaluation format designed based on a five-point scale derived from the fairness of measurement by the quality (refer to Appendix A: Table A5).

4.10   Approach of Data Analysis Techniques

In the design of mixed method, qualitative and quantitative data were collected for analysis. The process of data analysis is eclectic; there is no accurate way to determine the best technique in the analysis (Creswell, 1994). In this research, data that analyzed quantitatively and qualitatively prepared in the table to search for potential patterns and relationships. Quantitative data requires aggregation (unity) and preparation to make the meaning clear; qualitative data or interpretation has the meaning continues to be recognized by the observer (Stake, 1995; Groat & Wang, 2002). In this case, the keyword is identified as an indicator of a theme built. The descriptive analysis generated from SPSS version 12 and is provided in the form of tables and images that use Microsoft Word and Excel. Matrix format is used to check the layout data listed.

The results of the study are presented in the form of quantitative methods such as frequency percentage and the average value by using graphs and tables. Whereas qualitative data are given in code (theme) and separated according to the group (Stake, 1995; Creswell, 1994; Grout & Wang, 2002) by aspects related to the study (e.g., physical elements, activities, and meanings). It was done to facilitate the conclusion can be made based on the data, identify patterns that match (through a recurring theme or category), clustering (grouping responses with similar characteristics and meaning),

variables related (the relationship between two or more variables) and relations with the findings of the study (Groat & Wang, 2002). Meanwhile, data from direct observations were based on photographs and visual description (Creswell, 1994).

4.11   Conclusion

This section describes the research design focused on approaches, methods, data collection techniques and data analysis techniques. Selection of mixed approach (qualitative and quantitative) by the title and the diversity of these factors. The pattern obtained from the analysis of quantitative data are complemented with the findings of qualitative and vice versa. Both together/simultaneously complement the strengths and weaknesses that make the research more clearly. To understand the dimensions of the subjective and the place attachment and to examine the relationship and reasons, descriptive analysis methods are used to explain the findings.

CHAPTER 5: THE STUDY AREA

5.1 Introduction

This chapter makes a more elaborated review on the background, selection criteria and the current land use around and in the area selected for this study. This chapter explained the background of the study area, also highlighting the criteria of the location selection as justification for such a selection. To further strengthen the study, the current land use around the study area is also given the supposed attention as it is inextricably linked to the study that has been done. About this, every aspect in the study area should be given equal priority. The two waterfronts selected as a case study, namely; (1) Kuching Waterfront (KW) in the city of Kuching, Sarawak; (2) Lumut Waterfront (LW) in the city of Lumut, Perak.

5.2 Case Study Area

The area chosen as the case study is the waterfront. Two areas have been selected. The first study area from the East Malaysia, in the city of Kuching, Sarawak, while the second study area from Malaysian Peninsular, the Lumut city in Perak. The selection is based on two things; first, because Malaysia is a country that has 519 rivers, with 57,300 kilometers in length and 189 functions as river-basin, 30 functions as a reservoir that supplies 28 million people who live in Malaysia with clean water (JPS, 2009). Secondly, almost all the main cities in Malaysia are located close to the river areas.

Since independence, Malaysia is focusing on its infrastructure development to achieve urbanization. The increase in the city areas is very rapid compared to the rural areas. The population growth in the city area in three decades (1970-2000) increase rapidly especially after the realignment of city borders from 26.8% to 61.8% (Jaafar, 2004). Areas

selected for this research are; (i) Kuching Waterfront, Sarawak and; (ii) Lumut Waterfront, Perak. This case study is chosen based on one set of criteria that is developed to fulfill this research.

The first criteria; Kuching Waterfront, Sarawak (KW) is the pioneer project and serves an example for the waterfront development. It was also formed as an excellent practice for the Malaysian waterfront development as well as the benchmark for the whole of Malaysia (Yassin et al., 2010). KW is the earliest waterfront development project in Malaysia, built at the beginning of 1991, which ended in August 1993. It has received a civic design award from the Australian Landscape Architecture Institute in 1994. After it was built, KW has become a benchmark as an example for the waterfront development projects in Malaysia (Yassin et al., 2010). Lang (2005) acknowledged that physically, KW is one of the successful products and examples for a city design. The second criteria; in the city context, the city of Kuching and Lumut has a historical background that is almost similar. These two early cities were formed because of the trading activities in the harbor and its water transportation. Then, during the industrial era in Malaysia between 1970-1997, the harbor area in this third city endured deterioration in activity as well as physically (Yassin et al., 2010). Kuching was the first to do a redevelopment and revitalizing the harbor and riverbank area between 1991 and 1993, while Lumut did it between 2001 and 2010.

Third criteria; KW and LW are the public open space that is close to the city center area, and they have an important role in the city's function. KW has a role as a connector and a transit point between the Malay traditional settlement area at the northern side of the river and the commercial area in the city at the southern side of the river. Meanwhile, LW is the main gate entrance to the tourism destination of Pangkor Island by applying four

main segments of development and planning, where this area is developed with a different approach and concept from the activity and design standpoint to create a continuity between the elements in the area.

The success of a specific place has been identified to be influenced by the physical elements (tangible) and the spatial experience element (intangible). The waterfront development process in the case study area is a physical intervention to beautify and preserve the river corridor. Several sets of the activity program have been developed in the area to give a spatial experience to the users. The set of selection criteria in the case study that is developed is the basis for knowing the shape and the level of bond between the users and the place that is highly influential to the success of the area.

5.3   Kuching Waterfront, Sarawak (KW)

Kuching Waterfront, Sarawak in the center of Kuching City, has a length of fewer than one kilometers along the southern side of the Sarawak River connected to the hotel and commercial precinct in the city center. It was officiated on 3rd September 1993. The development of KW started to increase its potential as an asset for the future recreational and leisure place and as the city's landmark. The general concept of the area aims as a preparation place for a fusion of activities for the community and tourists while holding on to its historical and local culture backdrop. This concept becomes the foundation for the construction of KW especially in the material used, the structure, facility and the arts. The development of KW was entrusted to the Sarawak Economic Development Corporation (SEDC) by the Sarawakian State Government in 1990. Local and international architect consultants have been chosen to plan the project, which is Conybeare Morrison and Partners (Australia) as well as United Consultant (Kuching). The construction was done by the local contractor who took two years and a half (between

May 1991 until September 1993) to complete. The old riverbank that was associated with the deterioration in its physical quality, the muddy and dirty jetty has been transformed into a beautiful landscape and a busy riverbank. This metamorphosis played a role in becoming the catalyst for the development and the improvement of the nearby area in the aspect of economic revitalization through the increase in land value, a better surrounding and facilities in the city. (See Figure 5.1)
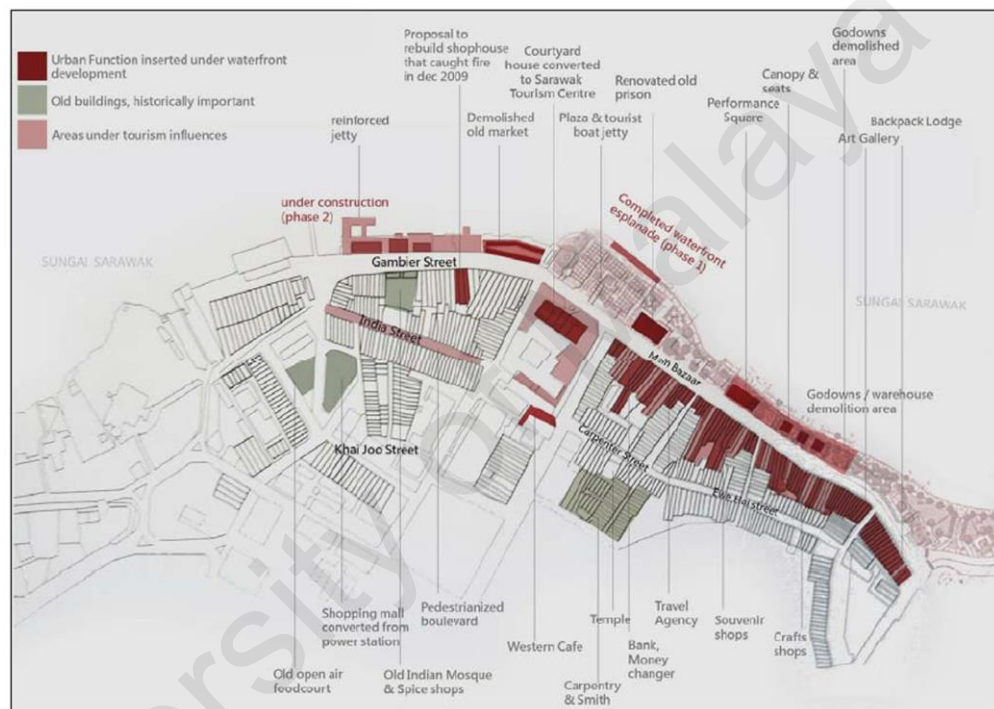
Source: City and Rural Planning Office, Dewan Bandaraya Kuching Utara (DBKU)

Figure 5.1: Kuching Waterfront and the surrounding functions.

KW is better known as 'The People Place,' equipped with the facilities for entertainment, relaxation, cultural performance, recreation, and art appreciation. KW has received three awards in 1994, which are The National Project Award in the Civic Design Category (awarded by the Australia Institute of Landscape Architecture), The Merit Award in Overseas Category (awarded by The Royal Australian Institute of Architect) and The Excellence in the Waterfront/Waterfront Centre Annual Award (awarded by The Waterfront Centre, USA).

KW has located at the heart of Kuching City and 20 kilometers away from the ocean. In the past, the riverbank in this city is used for as a regional shipping facility and becomes the point for goods distribution in the state of Sarawak. The main activity at the time is the trading in the commercial area in the Main Bazaar Street and the transportation of the goods distribution at the riverbank. The commercial area can be seen in the form of lines of Chinese shop houses and office buildings. Due to the development of a network of roads and advancement in the air transportation in the 1960s and 1970s, as well as the technological changes in shipping which became the new alternative in the transportation system, it resulted in the old technology being neglected and the decline in the activity and physical in the riverbank area. At the same time, the development of the commercial area and fishermen's boats has increased. Also, this area has historical buildings, commuter jetty, commercial as well as governmental buildings.

The Sarawak Economic Development Corporation (SEDC) is a statutory agency that was formed in 1972 to encourage industrial, commercial and socio-economic development in the state of Sarawak. SEDC is responsible for running several collaborative efforts with the private developers. These efforts include cultural facilities, golf clubs, shopping complexes and hotels that fulfill the tourists' needs, specifically from the Middle East. Most of the realities brought international brands such as Holiday Inn, Arnold Palmer and Crowne Plaza. To increase the image of Kuching, the redevelopment of Waterfront Sarawak becomes a necessity.

The design's purpose is to prepare mixed facilities along the waterfront which win the attention of the local and international visitors and create a specific feeling of togetherness. Among SEDC's desire is to maintain the historical and cultural constant

106

along the waterfront as well as to connect the Main Bazaar Street with the waterside and scenery. It is a presentation for Kuching and a good design example in the waterfront area in Malaysia. Several objectives of the design are first, to open the waterfront to the city by creating the corridor view to the water. Secondly, it seeks to maintain the historical elements in this district, and the third objective is to create 'Kuching with characteristics' (Lang, 2005). Artwork products and food outlets become dominant, with many localized in nature from part of the international network. The pattern of the native tribes has been adapted and used for the pedestrian lane patterns. The use of materials, however, must be robust and easily maintained. There are no local materials which possess this quality. Hence the granite stock is required to be imported from China and the mosaic tiles imported from Ravenna, Italy. The next aim is to throw the mud off the flat houses. The riverbank is however broadened, and the new development area located at the land opened was created. The difference of the spring tide in Sarawak is five meters. A bund built around the river is now holding the water at a fixed height. It is also effective in separating the relationship between the city and ocean as well as making the spring tide's pontoon in becoming a broken design part.

5.3.1   Physical Condition

KW area is along one kilometer where it starts from the junction of Tunku Abdul Rahman Street with Borneo Street and ends at the end of Rawa Street across the Main Bazaar Street and Gambier Street. The length of KW from Tunku Abdul Rahman Street until Square Tower is about one kilometer. From the Square Tower to the end of Jawa Street is about 750 meters. In parallel with KW from the southern side is the street in the city with a linear pattern extending from the East to West is Tunku Abdul Rahman Street, Main Bazaar Street, Gambier Street and Jawa Street. The early node of waterfront from the east direction (Tunku Abdul Rahman Street) is the equatorial food outlet, westbound,

which have several basic facilities such as benches for resting and stalls that sell various foods and drinks. In general, the pedestrian walk along the waterfront is broad and easily accessible. The separating gate along the riverbanks becomes the boundary between the waterfront and the river. A pavilion becomes the next node and right in front of the pavilion is the shipping waterfront for the river esplanade.

Another physical feature is the Square Tower with two towers overlooking the Sarawak River. This Square Tower has a wide open space with a pedestrian walkway that uses the paving stone material and a small shade of trees. This waterfront is built on top of piles which is to prevent deposition as well as full of tropical trees every 12 meters as shades. In the beginning, the landscape architects suggested to build the colonnaded pillar but changed it to an open pedestrian walkway. This scheme has a design to connect the hotel district with Kuching city center. There are food outlets and restaurants, a pavilion for cultural performances, fountain and theme park for the children. All this architecture is targeted as a tourist attraction as well as for residents and the different tribes of natives up to a point where there are always activities from the various tribal groups there. Several features give a unique accessory to the Kuching waterfront area. The Court building is accompanied with a concourse in front of it. The company's headquarters of former Sarawak Steamship become the central tourism office. At the south end is the Chinese Museum that is placed in the building that was built in 1912 by the Kuching's Chinese society for the Chinese Trading Hall. The City's Concourse which has a square tower from the 19th century becomes the center of this waterfront area. The tower which is formerly a prison becomes an exhibition space. It also offers the view across the river, overlooking the historical characteristics of cities and rivers; Malay villages, Castle (Brooke family's house, Borneo's White King from 1837-1946) and the Margherita Fort. The artworks which include the Kenyalang Bird's Statue is a modern steel decorated art

that depicts the Sarawak state's official bird. Balustrades riverbank is refinery forged, furniture well designed and plantation reflects the Sarawakian's tropical surroundings. It is an integration of buildings, landscapes, and roads that make this project a city design project and an architectural landscape work.

The waterfront metamorphosis has acted as a catalyst for the redevelopment of nearby areas. The value of the land close to the waterfront has increased, and new buildings have further been built to face the direction of this park. The old warehouse in the Main Bazaar Street has become the orientation of the gift store for tourism. Unexpectedly but most welcomed is the waterfront that attracts all the elements of the multi-ethnic Kuching residents where all social activities can be conducted. (See Figure 5.2)
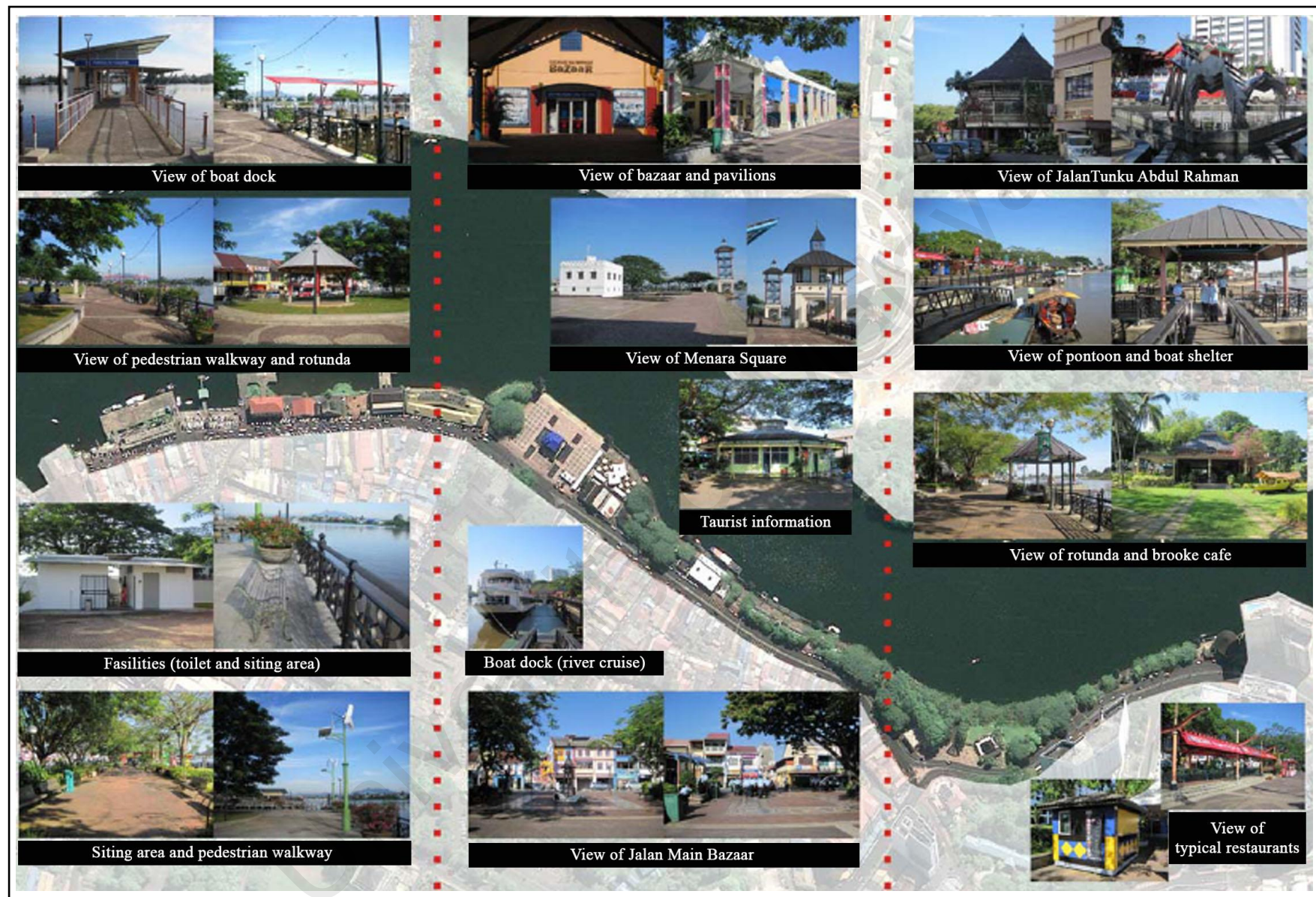
Figure 5.2: Characteristics of Kuching Waterfront, Sarawak.

5.3.2 Users

Based on the area's observation, the spatial user has been identified based on the involvement with the waterfront and the open space. KW functions as a place for entertainment activities, relaxation, recreation and cultural performances. It gives influence to each user, and they need to be in an open space full of visitors, tourists, shop owners, shopkeepers, hawkers, office workers, residents, and students. The waterfront is controlled by users from various individuals and socio-cultural characteristics. The main cultural groups are from Malay, Chinese, Indian, Indian Muslim and Iban. Other than the local society, KW is also a tourism destination for various states in Malaysia and also outside the country.

5.3.3 Use of Space and Activity

The waterfront is constrained by the city's commercial center with the shop houses buildings in the southern area of KW. Several villages across the Sarawak River can connect well with the boat transportation heading to KW and city's commercial center. It gives the opportunities for more activities to be done. All of the shop houses building blocks close to KW are used for commercial needs to support the tourism activities in the area.

5.4   Lumut Waterfront Stretch, Perak (LW)

To date back from history, the district or colonized area of Dinding is one that is placed under the ruling of the Straits Settlements. The ceremony of the signing of an agreement on the handing-over of the Dinding Colony to the Perak Government was held on the 16th February 1935 located in front of the *Lumut Rest House*. In conjunction with the event, the Dinding Colony had its name replaced to the *Iskandar District* and the name Tanah Merah (Lumut) was replaced with *Port Iskandar*. The Sultan of Perak at the time had also

endorsed the appointment of Raja Shahriman bin Raja Abdul Hamid as the Colony's Dignitary. For the remembrance of the event, the Al-Adly Mosque was built in the Lumut town to signify the gratitude on the handing-over to the Perak state government. Until the 1980s, this district was still known as the Dinding District. On the 1st January 1982, the colony that was once established as Dinding had its name changed to the District of Manjung which covered an administrative unit involving the areas of Beruas and Sitiawan.

The Lumut town initially, had only started off as a fishermen's village. The village area is located along the Dinding River. The Lumut town is renowned for being a major entrance to Pulau Pangkor. With the existence of the Malaysian Royal Navy (TLDM) that had been founded since the 1980s and followed by the exponential growth of the tourism sector together with the development of the infrastructure, a new image has been reflected by Lumut town. The town has an area at the expanse of 47.9 hectares.

The planning and development of the whole Lumut Waterfront Stretch project are divided into four main segments. The four main segments are the Maritime Wing, Jetty Wing, Esplanade Wing and Marina Wing (see Figure 5.3). Every one of the segment is developed with different marina approach and concept, but similar regarding the activities and designs as to create a sequence. These areas accommodate various facilities and activities, whether for the tourists or the locals. Relating to the concept of the construction and detailing, it concentrates on the maritime concept where the approach of the living entities and sea environment also human activities with the sea itself are introduced, with the adoption of the modern architecture. The different maritime concept has been inculcated in four segments of the development and planning of Lumut Waterfront Stretch, where this area progresses with a different approach and concept regarding the

activity and design, to create the sequence among all four areas. The *'Water friendly'* concept or the water-based development is the main attraction and is given the emphasis in the development of Lumut Waterfront Stretch.

The Figure 5.3 and Figure 5.4 below shows all four areas namely the Maritime Wing, Jetty Wing, Esplanade Wing and Marina Wing and their functions to the town of Lumut. With the maritime-based concept and development, it has altered the perspective and image of the town of Lumut. This automatically leaves an impact on the economic and social activities in this area.
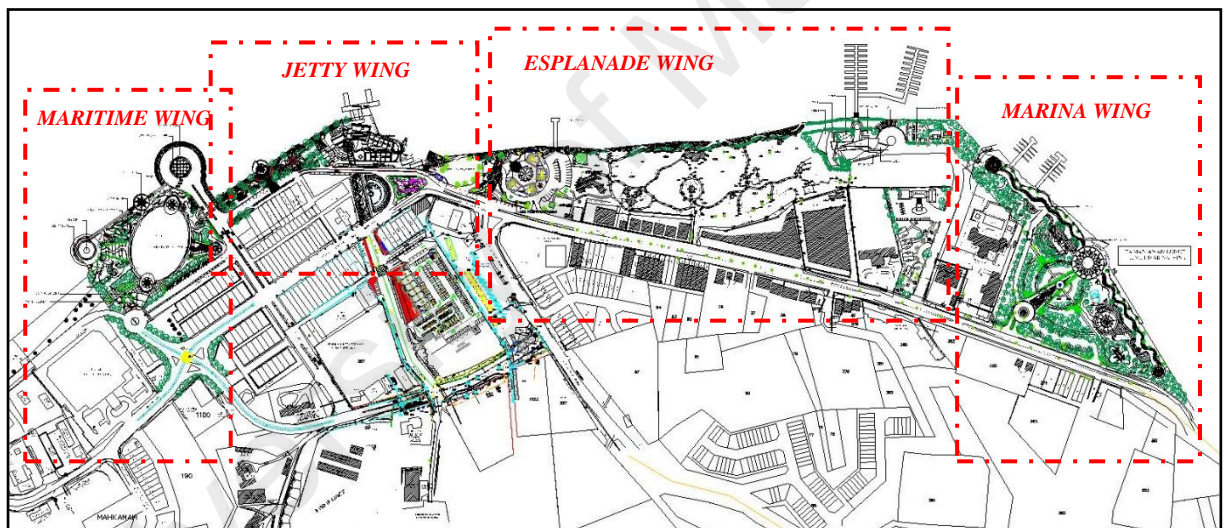
Source: City and Rural Planning Office, Majlis Perbandaran Manjung (MPM)

Figure 5.3: Lumut Waterfront Stretch, The town of Lumut.

Figure 5.4: Characteristics of Lumut Waterfront, Perak.

5.4.1 Maritime Wing

Maritime Wing is an open area for the public to do a lot of recreational activities with their families. About that, public amenities like the mosque, public toilets, fishing platform and various other facilities are provided. This area is suitable to be made as a place for a fair or expo. *Maritime Wing* covers an area of 6.78 acres, and the development cost is expected worth about RM40 million, where it covers a component of the Floating Circle Pathway that can be used as a performing stage. Apart from that, the construction of the Maritime Plain that can accommodate 40,000 people at one time. Also, there are also components of the plaza and pedestrian facility, kiosk and business space to open up more job opportunities to the residents.

From the observation done at the *Maritime Wing* the buildings and facilities provided function as recreational places and a place for them to have and enjoy their meals. This area is equipped with the shore restaurant that gives emphasis on the refreshing sea view, making this place crowded and cheerful at night. The peaceful and comfortable feelings towards the sea environment have further elevated the status of the place. It is also discovered that the design of the *Maritime Wing* which is eco-friendly has made it a location that is always frequented by the public. The inculcation of the eco-friendly concept into the building design has been a good and efficient idea. It is a positive integration whereby the function of the building associated with the surrounding design can improve the status of the building.

5.4.2   The 'Jetty Wing' Lumut Jetty

The Lumut Jetty covers an area of 3.8 acres, and the development cost estimated worth RM13 million which includes the jetty plaza equipped with various facilities like the restaurant, handicraft stalls, sea products, ticket counter, public toilet, and operation office. The Lumut Jetty Terminal *(Jetty Wing)* is a tourist's transit place to the Pangkor Island. This jetty is a great landmark to the town of Lumut. The design which adopts the attribute of a marina illustrates a new image that suits the theme. The construction materials used are concrete and glass, which highlight the beauty of the architecture even more. The shading roof for the pedestrians is designed with the sea wave element, making the architectural work in the area unique and exciting. The provision of the Lumut Bazaar in front of the jetty makes it easier for the visitors to do their shopping.

The element of soft, arch-based landscape also using the concept of maritime is also adopted in the surrounding area of the jetty. The preparation of the landscape element with the water concept like the water fountain in the middle part of the jetty entrance makes the area more beautiful. Automatically, it provides a positive visual effect and comfort to the visitors. Other than that, the Jetty Wing is also complete with *Plaza Promenade* which has two units of fast food restaurant, ten units of sea product stalls, and three units of kiosk known as *Medan Dato' Ishak*. The terminal plain has a landscape area with the maritime concept which is very suitable for relaxing activities. The tourism center building serves as the key element regarding the function of the area. The Lumut Development and Management Unit, Lumut Tourism Information Center, Manjung City Council (MPM) has been established to manage, carry out and implement management duties related to tourism in the District of Manjung.

5.4.3 Esplanade Wing

Esplanade Wing has an area of 18.99 acres with the development cost expected to total RM26 million. This area is privately-owned but with the establishment of the International Sailing Club, indirectly it able to diversify the functions of the area, as well as offering another added advantage to the public. This area also plays its role as the entrance to the sailors from within the country and outside of the town of Lumut. Indirectly, this factor contributes to the advancement of the industry in the town of Lumut.

The Esplanade Park is open to the public on the 15 August 1996 and to attract the visitors to come to the Pangkor Island. Other than its location that is near the jetty, the beautiful landscape factor also tends to grab the visitors' attention. Various facilities are provided by the Manjung City Council at this park. Among them are the handicraft center, food stalls and information center. The design of the passenger jetty provided in this area is built based on the concept of the sea waves, and this is evident on the roof of the pedestrians' pathways. The construction structure used is metal and concrete, and this indirectly makes more prominent the maritime design in this area.

5.4.4 Marina Wing

The Lumut Waterfront Public Park is an area of 7.4 acres with the development cost reaching RM6 million. It is located in front of the Dinding Strait. The park was officiated on the 29 November 2004 or 16 Syawal 1425H by the D.Y.T.M Crown Prince of Perak, Raja Nazrin Shah Ibni Sultan Azlan Muhibbudin Shah. Facilities available in this park are a restaurant, a kiosk, six units of food stalls, the 'Marina Plaza,' 'Marina Wall' and children's playground. There have been some suggestions to reclaim the river area up to Ng Kok Tai (Amang Factory) which enables the place to be made wider by 3 acres and the reclamation cost to be around RM5 million.

Marina Wing has a building design that is luxurious regarding the interior design. This is because the marina of this type has the function of attracting the rich or the well-to-do in this region to transit and do their businesses here. The architectural concept of the Marina Wing is originated from the ship. The combination used in this architecture produces a fascinating design. The use of unique construction materials along the pathways like the gravel, pebble, granite, cellular or crib paving, *terrazzo*, *sandstone*, *limestone,* and *slate* so that the view by the seashore becomes more eye-catching. This has attracted people to visit the place to enjoy the comfortable and peaceful ambiance of the area. Additionally, with the provision of the restaurants by the seashore, the turn-up of visitors will be better.

The combination of activities regarding food, drinks, and recreations serve as the common development by the shore. Apart from that, it can be seen here that the building design is an appeal to the people. This area is also equipped with recreational and resting places by the seashore, complete with an attractive landscape. The elements of architecture and exclusive detailing in this area should be able to improve the status of activity, particularly in the seashore. Other than that, the *Marina Wing* is also surrounded by shaded trees rendering this area as a peaceful 'forest city.' Other than that, this area provides a children's playground and a sufficient rest area for the visitors.

5.5   Conclusion

The selection of this study area is made, aimed at better comprehending the actual situation, as well as conducting a more profound examination of the topic of study. This chapter has explained about the area, selected as our case study. Waterfronts in the case study area is a reflection of the city center characteristics and are important as the main locus in tourism and recreation. The waterfronts for all two rivers offers several experiences for the users coming from various socio-cultural backgrounds. As a whole,

this chapter has stated the study location that has been involved, as well as the background study that covers the activities, also the surrounding environment of the study area. Apart from that, the justification over the study area has also been given to consolidating this study further. The land use factor also plays a significant role, also influences the study area's town design. The decision to select this area of study carries the purpose of conducting a survey towards the public's perceptions of the area. In the chapter that follows, an in-depth analysis also the findings that have been successfully gathered elaborated, based on the data that have been collected as yielded from both the survey and observation methods.

CHAPTER 6: ANALYSIS AND RESEARCH FINDINGS

6.1 Introduction

This section focuses on the analysis data associated with the four initial objectives of the study; (i) to determine the form of emotional and functional attachment of open space or place in the waterfront's development, (ii) to identify the reasons that affect the place attachment especially on the meaning and importance of the place, (iii) to identify the level of place attachment with the user's roles in the open spaces and (iv) to identify the characteristics of open space along waterfront which influences by users engagement. The discussion will be divided into six sections; first, identify the respondent's profile, second analysis form of attachment, the third section analyzes the level of attachment to the open space on the waterfronts. The fourth presents the existence of attachment and its associated meaning. The fifth part discusses factors for attachment and attachment diversity analysis among the main users according to their roles and demographic characteristics. The sixth part discusses more the attributes inherent to the activity, image and physical form.

6.2 Respondents Profile

In this survey, 330 respondents gave the role and willing to answer questions to complete the questionnaire. Every place is represented by 165 respondents consisting of the moving and static user. They represent the main user areas; shop owners, workers, visitors, tourists, students, and locals. The majority of respondents aged between 18-24 and 25-49 years, where almost 60% of them are women (refer to Table 6.1 and 6.2) results show that KW has some respondents in the 18-24 age category, while respondents with categories age 50-64 were the least.

Table 6.1: Respondents Age

Ages	Respondent (N=330)	
	KW	LW
18-24	96	74
25-49	55	63
50-64	14	22
Above 65	0	6

Table 6.2: Respondents Gender

Gender	Respondent (N=330)	
	KW	LW
Man	75	83
Woman	90	82

Table 6.3 is marital status and ethnicity, showed that KW has the highest number of respondents who are unmarried, while LW indicates a greater number of respondents who are married. Regarding ethnic background, a majority of respondents to the KW are Malays followed by Chinese, Iban and India (Table 6.4). Although nowadays KW was known as modern public space, KW location is the earliest settlements of Malays and Chinese, while LW and the surrounding area indicate early presence of Chinese and Arab communities in the city. This has affected the characteristics of the socio-cultural areas and the dominance of certain groups to live, work and establish their communities in the area.

Table 6.3: Marital Status

Status	Respondent (N=330)	
	KW	LW
Unmarried	103	98
Married	62	67

Table 6.4: Ethnicity

Ethnic	Respondent (N=330)	
	KW	**LW**
Malays	52	60
Chinese	44	54
Iban	29	-
Indian	40	51

Table 6.5 shows that about 75% of the respondents have a formal education, i.e.; certificate/diploma and SPM or lower, while the rest hold a bachelor's degree and a bachelor's or higher education qualifications. Their income are from RM 1,000 – RM 3,000 and RM 1,000 or lower (Table 6.6). The number of employed in the private sector and self-employed (trader) is more. KW show a higher number of working as government officials (Refer to Table 6.7). Table 6.8 shows that 176 of the 330 respondents living in cities compared with 154 people who live in rural areas.

Table 6.5: Level of education

Level of Education	Respondent (N=330)	
	KW	**LW**
SPM and lower	76	65
Certificate/Diploma	53	68
Bachelor's Degree	31	24
Master and higher	5	9

Table 6.6: Monthly income

Income	Respondent (N=330)	
	KW	**LW**
< RM1,000	73	64
RM1,000-3,000	56	73
RM3,000-6,000	28	18
>RM6,000	8	10

Table 6.7: Jobs

Area	Respondent (N=330)	
	KW	**LW**
Government	65	35
Private	32	47
Self-employed	63	76
Not working	5	7

Table 6.8: Residence

Residence	Respondent (N=330)	
	KW	**LW**
Cities	98	78
Rural areas	67	87

The age of respondents who took part in the in-depth interview (N=36) were aged 27-69 years and majority 40-55 years distributed equitably between men and women. Others than the visitors and buyers (moving users), the majority of respondents were from the working and living in the area (static users). They are shop owners, shopkeepers, hawkers and office workers. They represent the main users of the dominant ethnic group in this area. The majority of respondents have involvement with the place between 10-30 years. LW indicates a higher number of respondents involved in open space. They have inherited the family business for 20 years. Personal characteristics and the socio-cultural respondent are different. This historic open space is defined by ethnicity (Malay, Chinese, Indian and Iban) established at the beginning of the early settlement and affected economic activities and transactions up to the present. These things influence the socio-cultural background of users visiting and shopping. In summary, the majority of the respondents in this study are the young and middle age with a modest monthly income. They represent the ethnic populations who inhabit the open space (Malay, Chinese, Indian and Iban). They are people who are involved with certain work commitments such as business, socio-cultural interaction, and visitors who want to relax or even shopping.

6.3   Form of Attachments

The following section analyzes the data to answer the first objectives. The first objective is to study the form of emotional and functional attachment of open space or place in the development of the waterfront (KW and LW). The initial assumption of the research has revealed that the form of the attachment is determined by the dominant features associated with the place.

6.3.1   Functional Attachment

The results of the survey and in-depth interviews show that in the specific context of open space, the functional attachment is the most powerful form of attachment. The reaction of in-depth interviews presented in Table 6.9, which suggests that the attachment has been expressed regarding the period involved, the level of familiarity, dependency level, the level of satisfaction and a sense of comfort. This shows the importance of open space in support of economic and social activities. There are similarities in all the case studies (KW and LW) marks the place where it depends on for acquiring fixed income, business opportunities, and related events. Satisfaction express with the availability and diversity of public facilities, city's scape street and open space improvements, the intensity of visitors and buyers. Physical comfort and the environment is reflected in the level of convenience regarding accessibility, services, and shading from the weather.

Table 6.9: Functional attachment indicator (In-depth interviews)

Indicator	Place	
	KW	LW
Engagement	• Involvement from morning to evening. • Attachment to the place because of long-term involvement and relationship. • Frequency visit increase familiarity. • Leisure and entertainment. • Business and hawkers activities. • Food and goods attraction.	• Involvement from morning till night. • Social relations and strong attachment to activities and cultural groups. • The sense of ownership due to the long period of involvement. • Food and goods attraction. • Commit to daily routine activities. • Leisure and relaxation.
Familiarity	• Very familiar with the place. • Describe the area is exquisite. • Recognize almost every people and vendor. • Describe the physical changes in detail. • Always visit the nearby shops.	• Very familiar with the place. • Describe the area very well. • Recognize almost every people and vendor. • Describe the physical changes in detail. • Regularly visit and shop during special events.
Dependency	• Source of income. • Economic potential. • Attachment to the place because easy to generate income and a better life. • Have control over the space due to the long term engagement. • Attachment of its business profits.	• Have control over the space due to the long term engagement. • Attachment to a place as a business opportunity. • Place selected for business and society.
Satisfaction	• Satisfied with various facilities and transportation. • Satisfied with the price offer. • Satisfied because attract people to visit. • Attraction on food such as noodles and fruits. • The ideal place for life and daily basis.	• Satisfied with various facilities and transportation. • Satisfied with the price offer. • Satisfied because attract people to visit. • Attraction on food such as seafood and marine products.
Comfort	• Comfortable place to work and visit. • Comfortable and happy with the place. • Easy to find foods. • Comfort and accessible to the services offered. • The affordable price of goods and foods.	• Comfortable and relaxing to be in the area. • A clean environment. • Comfort and accessible to the services offered. • The affordable price of goods and foods.

Respondents were satisfied with the physical improvement of open spaces and roads, the choice, and diversity of products, as well as attractive to visitors and shoppers. These respondents evaluate open space KW and LW;

"Usually I come here to shopping since 20 years ago. The facilities here are excellent and easy to park and walk. I am here if I want to find certain foods such as noodles, bread, and fruit." (Respondent 07: Visitors involvement 20 years) KW.

"I used to come here to buy food and seafood. This area has grown since I was here and continue to grow. Better infrastructure facilities make me feel comfortable to visit this area." (Respondent 04: Visitors involvement 15 years) LW.

Another respondent stated the importance of the location and intensity of pedestrian to support their attachment to the KW and LW:

"If possible, I do not want to move to another place. The place is ideal because the area has access and excellent location. There is always a visitor who pass by." (Respondent 03: Workers - 7 years of involvement) LW.

"This location is excellent because it is close to the main road, many people waiting for the bus and the boat." (Respondent 08: Workers - 10 years of involvement) KW.

"When the month of Ramadhan begin, there are always full of people, and the hawkers sell all kinds of food." (Respondent 02: Visitor) KW.

"Although I am not from this state and work here, I always feel comfortable when visiting this place." (Respondent 09: Visitor, 3 years involvement) LW.

The functional attachment has been shown as a union with the place. This type of attachment contained in the physical characteristics (function) place. For example, one of the open space in the Marina Wing LW known as a location of recreation and meals for locals and visitors, who feel that the presence of shady open space used for seating and shelter. One respondent went on to explain the reasons he chose to be in that location:

"Aunty and uncle picked this place because it is located in the town center, comfortable for rest and recreation, as well as easy to find a shop to eat and drink." (Respondent 12: Visitors, 10 years involvement) LW.

Regarding improvement, respondents strongly agree that public open space and accessibility are the best places for their activities and they are happy with the improvements. Briefly, respondents felt appropriate for the functions and access to open space can be seen as the best option in support of their activities compared with other places. This area is vital in their lives as they seek a place and personal needs. In conclusion, the attributes associated with the dominant function of open space and accessibility is influenced by the form of the attachment. These findings support the

126

assumption of this research that the level of involvement and familiarity is influencing the level of attachment to place.

6.3.2 Emotional Attachment

Emotional attachment is often expressed by static users economically very dependent on open space and waterfront. Obtained that emotion is translated in the form of dissatisfaction with the issues that arise. Respondents from KW and LW expressed dissatisfaction to the contestation of street vendors by illegal intruders, conflicting interests and grievances about physical changes. The motive for the emergence of the negative reaction is to protect special areas threatened by traders from other traders who violate the law in the area. Meanwhile, the response obtained from the interviews showed that positive emotion is always associated with the open space atmosphere, activities, street, feature, image enhancement and physical structure of the place. The following shows the attachment of open space:

"I live outside of this area, but I feel comfortable to do business in this area." (Respondent 02: Hawkers sidewalk) KW.

Statement by visitors reflects the familiarity of respondents with the relevant lymph and open space as well as the ability of the place:

"I love the atmosphere in here, a lot of recreational and goods at a reasonable price." (Respondent 14: Visitor) LW.

To analyze the dimensions of place attachment more specifically, reference was made by Shamai (1991) have developed seven stages sense of place that can be used to understand the level of attachment to the place. Related to the context of the study, open space areas and roads are regarded as central to personal experience and identity in creating the

personality of the place. The sense of community identity is more strongly felt on the streets and nodes that have historical value and modern open space in KW and LW. Table 6.10 shows the emotional attachment indicator obtained from an in-depth interview. Respondents not only share their knowledge of the area but also to explain the sentiment, pride, loyalty and topophilia to place (Tuan, 1977). Their existence is closely related to the role of the public in developing a sense of belonging and self-illustrating territoriality and identity. Regarding the theory, the strength of the identity of the place based on two factors, namely: the emotional investment made by each in a particular location and period they are united by location (Moore and Graefe, 1994).

Table 6.10: Indicators of emotional attachment. (In-depth interviews)

Indicator	Place	
	KW	**LW**
Happiness	• Happy doing business and working in this place. • Pleased with physical changes. • Pleased with choice and convenience items. • Please with reasonable prices.	• Comfortable to be in the area. • Pleased with physical changes. • Many local and foreign visitors. • Please with reasonable prices.
Positive Impression	• Positive in creating a better physical image. • Positive about the environment of the place.	• Positive with the place. • Positive with a different atmosphere.
Sentiment-care	• Resistance on transferring the hawkers. • Upset if moved to other areas. • Defensive with changes in the physical environment. • Concerns about the level of crime and social. • Concerns about vandalism and facilities.	• Resistance on transferring the hawkers. • Defensive with changes in the physical environment. • Concerns about cleanliness. • Feeling that the place is more suitable for younger generations and tourists. • More clean space and organized.
Loyalty	• Do not want to move because of the strategic location. • Familiar with the environment and surrounding communities. • Attachment of place because of the frequent visit.	• Do not want to move because of the strategic location and satisfied. • Do not want to move because of the community. • Attachment of place because of the frequent visit.
Pride	• Attachment to open space as a symbol of the place. • Feel proud because of the popularity of the place. • The sense of ownership and long-term involvement.	• Feel proud because of the popularity of the place. • Proud to the place because of its uniqueness. • Proud of the place as the gateway to Pangkor Island.
Love	• Love for a place to live and work. • Love the place due to its characteristic.	• Love for a place to live and work. • Love the place and understand the areas.

6.4   Level of Attachment

The following section analyzes data to discuss the second part of the first objective of the research is to determine the level of emotional and functional attachment of the open space and accessibility in KW and LW. The initial assumption of the study stated that the involvement of the main factors affecting the level of attachment to the open space and accessibility.

6.4.1   Functional Attachment Level

The survey on the functional attachment indicates a more positive response. Table 6.11 shows the average measurement value is 2.72 (KW) and 2.70 (LW) from the value of 4.0. Results showed positive results had been collected from respondents in KW and LW. They feel comfortable and fulfilling the role and function to be there than anywhere else. In fact, they are very satisfied with the improvement of infrastructure in the area. In response to the statement 01 (no other location as this location) to inform that the function is a very strong attachment (KW: 2.88; LW: 2.69). Figure 6.1 shows the positive results were collected from respondents in KW and LW.

Table 6.11: The level of functional attachment to KW and LW based on the average value.

Element		Statement	KW		LW	
			Mean	Std. Dev	Mean	Std. Dev
Functional Attachment N=330	01	No other location as this location (Best)	2.88	.665	2.69	.675
	02	I feel comfortable at this location (Comfort)	2.77	.682	2.75	.681
	03	This location is the best to fulfill my goal (Goal)	2.68	.680	2.92	.534
	04	This location is very important for me (Important)	2.53	.691	2.45	.702
Format of response: 1 = strongly disagree; 4 = strongly agree		Average Value	2.72		2.70	

It is understood that the open space and accessibility has played a role in an open space and strategic fit to work and do business. Although LW has a lower result of respondents approved on the quality, LW considered the most popular destinations same as KW. LW uniqueness can be attributed to the infrastructure and hawkers occupying the open space and accessibility as attractions. While at night, the night market and leisure activities to enliven the atmosphere in the area.

FUNCTIONAL ATTACHMENT

	Best	Comfort	Goal	Important
KS	78	65	67	56
LW	70	60	65	52
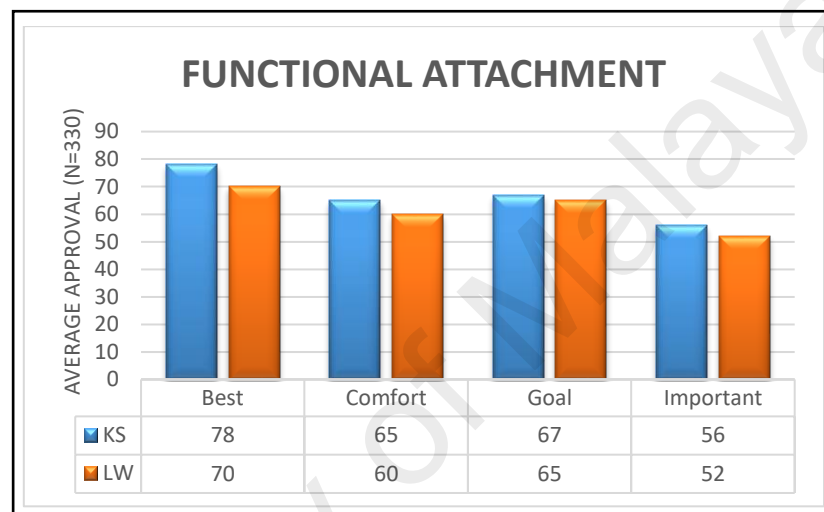
Figure 6.1: The level of functional attachment to KW and LW based on the percentage of respondents approved (N=330).

6.4.2 Emotional Attachment Level

The survey results show that emotional attachment has a higher positive response. Average value 2.75 (KW) and 2.48 (LW) from the value of 4.0 indicates that the emotional attachment to KW and LW is strong (see Table 6.12). Mean value 2.94 (KW) and 2.84 (LW) to the statement of 04 (I am very attached to the place/location) explains that the respondent was bound to place. Both of these areas are considered as a significant and exciting area. LW respondents felt that coming to the open space is the most satisfying because of the influence of recreational activities and shopping as the main attraction to the place where LW showed the highest percentage of respondents approved.

Table 6.12: The level of emotional attachment to KW and LW based on the average value.

Element			Statement	KW Mean	KW Std. Dev	LW Mean	LW Std. Dev
Emotional Attachment N=330		01	I feel very happy to be here (Happy)	2.87	.632	2.59	.680
		02	I'm feel safe to be here (Security)	2.15	.868	2.44	.705
		03	I can forget my problems here (Forgetting problem)	2.51	.670	2.17	.881
		04	I'm very attached to the place/location (Attached)	2.94	.482	2.84	.511
		05	This place gives meaning to myself (Means)	2.78	.614	2.61	.681
		06	I responded positively to this place (Positive)	3.00	.438	2.63	.676
		07	This place gives me satisfaction (Satisfaction)	2.94	.478	2.54	.700
		08	I love to be here when I have a time (Spend Time)	2.60	.603	2.32	.759
Format of response: 1 = strongly disagree; 4 = strongly agree			Average Value	2.75		2.48	

Figure 6.2 shows the same pattern approval. However, the percentage of approval for LW is lower than KW even the upgrading and beautification efforts to improve the quality of physical activity in the area has been completed. Although the response to the statement 04 (I am very attached to the place/site) was very positive, the answer to the other statements describing the emotional attachment to LW less than KW. The lack of security in open space and accessibility can be a cause of discontent against the security, the economy and even the stability of the respondents have a long-term involvement with the place.

Emotional Attachment

	Happy	Security	Forgetting Problem	Attached	Means	Positive	Satisfaction	Spend Time
KW	70	45	56	70	62	80	73	54
LW	68	55	42	69	60	70	69	48
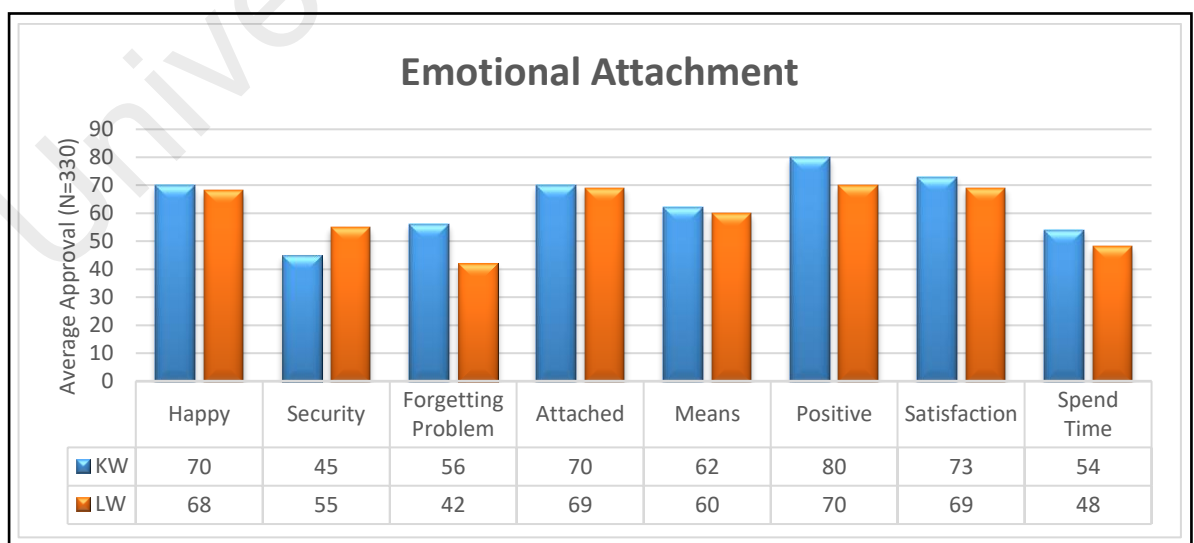
Figure 6.2: The level of emotional attachment to KW and LW based on the percentage of respondents approved (N=330).

Emotional attachment to the open space and accessibility indicates the capacity of a place to meet the psychological needs of users in arousing their emotions. It can be concluded that within time, a place identity can be developed in line with its long-term involvement, socio-cultural interaction, a sense of pride and ownership through symbol and meaning. These findings also support the research assumption that long-term involvement is the main factor affecting the level of attachment.

6.5 The Reason for Attachments

The second objective of this study was to identify the reasons that affect the place attachment to the respondents about the meaning and importance of the place. The following sections analyze the data for the relevant aspects to the respondent. This aspect includes the meaning and importance of the place, the purpose of engagement and the elements that determine the reasons for the attraction of attachment.

6.5.1 The Meaning and Importance of the Place

Six statements show a variety of meaning and accessibility to open space for a better understanding of factors that affect attachment. Table 6.13 shows the statement 06 (best place to generate income/money) has the highest value. This indicates that the respondent engagement and involvement is closely related to the location as a source of income by its primary function.

Table 6.13: The meaning associated with KW and LW based on average values.

Element			Statement	KW Mean	KW Std. Dev	LW Mean	LW Std. Dev
Meaning N=330	01		The people here are warm and friendly (Friendly)	2.37	.836	2.25	.865
	02		Restore old memory (Memory)	2.35	.855	2.22	.881
	03		In accordance with my lifestyle (Lifestyle)	2.75	.581	2.69	.621
	04		People here are care to each other (Caring)	2.37	.842	2.25	.862
	05		Location of meeting various people (People)	3.18	.422	3.33	.385
	06		The best location for generate an income/money (Money)	3.10	.436	3.07	.480
Format of response: 1 = strongly disagree; 4 = strongly agree			Average Value	2.69		2.64	

The decision on the fact 05 (meeting place of various people) for the mean value of KW= 3.18 and LW= 3.33 indicates the strength of the cultural characteristics of the place where the respondents describe their experience of meaning based on open spaces and waterfronts. The open space does not seem strong value as a memory of the past, but the respondents agree that the venue fits their lifestyle and cultural background.
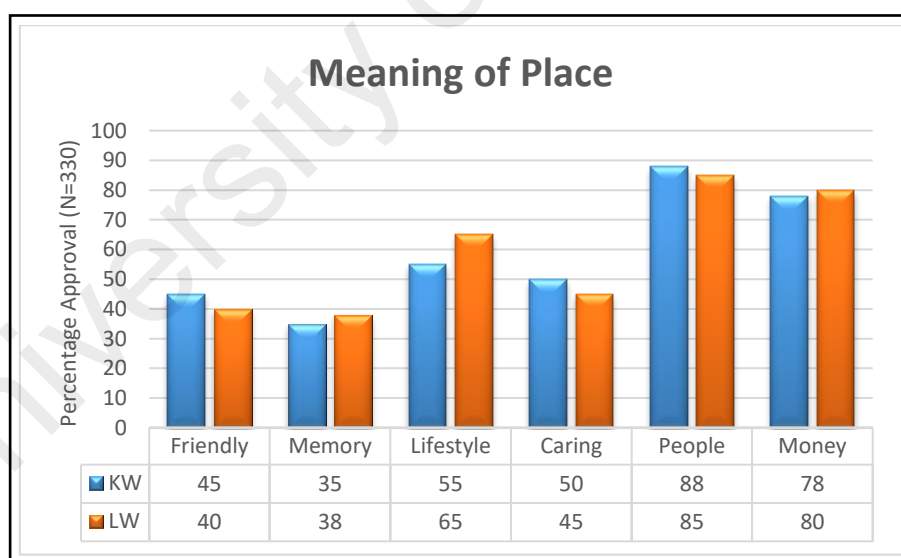
Figure 6.3: The meaning associated with KW and LW based on the percentage of respondents approved (N=330).

Figure 6.3 shows that the personal and social factors are the most affecting meaning of the respondents, in the presence of various cultural groups of users showed the highest percentage, and followed by the importance of the place as a source of income. Based on the view of the respondents, the place is more meaningful because of the importance of the place in their lives. Setting constructs the meanings specifies the reason for the attachment to open space and waterfront. This is illustrated from personal factors, social and cultural links with the place. Survey data show that open space and waterfront mutually qualities as a place to earn income, cultural diversity and social interaction meeting. The dependence of the respondents in the open space described in the following response:

"I generate income in this place" (Respondent 02; Hawker - 10 years of involvement) KW.

"This area is perfect for business and more profitable" (Respondent 06; Hawker - 5 years of involvement) LW.

"This place is unique considering that many communities will be here" (Respondent 12; Visitor - 2 years involvement) KW.

Open space and accessibility in KW and LW are necessary for respondents' experience of its function as the center of economic and socio-cultural activities. In the case of KW and LW, meaning and accessibility to open space developed for basic needs, social and economic. The spirit of place rooted in the past has made the essence of the place despite the changes happening to the physical and activity patterns.

6.5.2   The Purpose of Engagement

The respondent did an attachment with various activities. However, the majority of respondents were in open space are to do business, working, recreational activities and shopping. The results in Table 6.14 shows that the KW is higher than working activities while LW is the place for entertainment activities as well as business locations.

Table 6:14: The purpose of involvement to the place (N=330).

Areas	KW	LW
Activities	**%**	**%**
Working/Business	40	30
Shopping	12.7	12.7
Study	4.5	15.9
Seeing friend	13.6	9.5
Visiting	22.7	20.5
Entertained	5.5	7.7
Others	0.9	0.9

Open space and accessibility are important things in the destination of respondents were in place. Table 6.15 shows that about 80% of the respondents agreed that they came to the place are their main goal. But not all respondents visited an open space on the waterfronts whenever they are in Kuching or Lumut. This can be attributed to the existence of other attractions in the city center.

Table 6.15: The main purpose of participation in the place (N=330).

Areas	KW	LW
Purpose	**%**	**%**
Yes	80.25	79.58
No	19.75	20.42

6.5.3 Elements of Attraction

The importance of a place to the user can be reflected in the choice of open space and waterfront that is appealing to respondents. Based on a survey of all cases, shopping and recreational activities are considered as the main attraction waterfront and open space. Figure 6.4 shows a selection of the respondents to the charm of the place chosen by each. Physical elements such as public facilities are the lowest attractions by respondents. Different communities are seen as a contributor to the creation of a different atmosphere, but this is not considered to be the main attraction of the place. Hence, the involvement and interesting choice of elements need a strong connection with the objectives and their desire to be in open space and open space capabilities to support that goal.
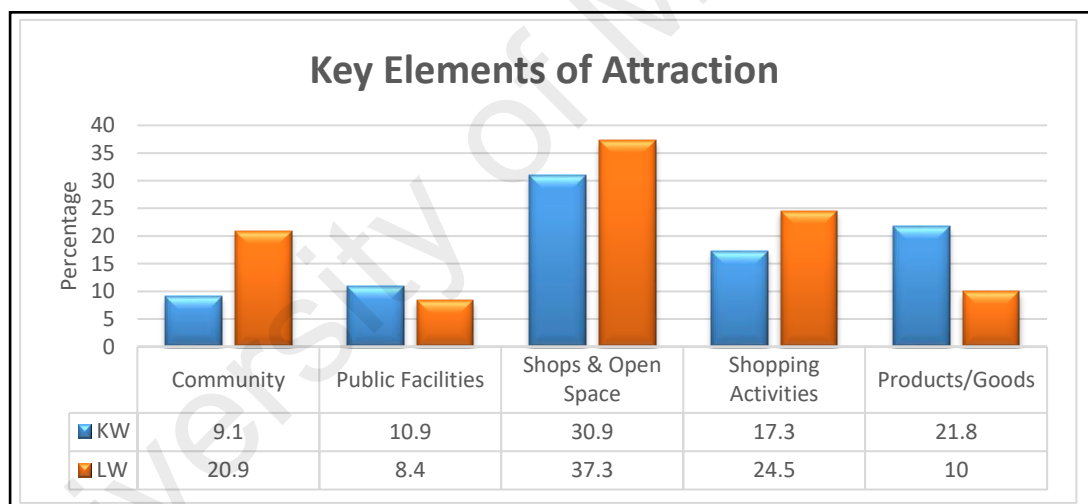
Figure 6.4: The main elements of attractions in KW and LW.

Hawker areas make a significant contribution in shaping the different characteristics between KW and LW. Their area certified by law municipalities in open space. Even so, there are also street hawkers dealing in illegal activity in the area. The results show the role of hawkers is an element of strong appeal to visitors on the riverbanks of the KW and LW.

6.6 The Main Factors Affecting the Place Attachments

The following section discusses the factors that affect the place attachments. The main factor including the involvement, familiarity, cultural and ethnic, changes and physical improvements, memory, and knowledge of the waterfront. At the beginning of the investigation has been assumed that the level of involvement and familiarity are the main factor influencing the level of attachment to place.

6.6.1 Length of Engagement

Place engagement is the act of engaging in a particular activity in a given location. Place engagement can be connected as a destination to come to the venue, frequency, and duration of stay in that location. Table 6.16 shows that 75 of the 165 static respondents perform engagement with the open space in the next 1 to 5 years, which involved between 6-9 years (N = 21), 10-15 years (N = 29) and 16-30 years (N = 22). 18 respondents have 30 or more years of involvement with the place. The study stated that continuous and frequent involvement would contribute closeness to places.

Table 6.16: The static user involvement (N=165).

Place	KW	LW
Period (Years)	%	%
1-5 years	20	25
6-9 years	9	4
10-15 years	12	6
16-30 years	3	10
Over 30 years	6	5

The level of attachment to the open space varies according to the length of time involved. In line with previous research which claimed that the place attachment is affected by the extended period of united and frequently visit (Gustafson, 2001) and are often produced from permanently resident in a particular area (Hay, 1998). Respondents connect their

knowledge and familiarity with the place based on the frequency of visits and the involvement shown in the following reaction:

"Since 10 years ago, I came here because I want to shop. Facilities are getting better with adequate infrastructure. I came here looking for seafood such as anchovies and dried fish because it has been around since time immemorial."(Respondent 05: Visitors, 10 years involvement) LW.

The results in Table 6.17 indicates that respondents are involved on a daily, weekly and monthly. Daily activities mainly involve static users while visitors and buyers have more involvement on the weekly and monthly. KW showed the highest percentage of daily involvement while LW showed a higher frequency to weekly participation.

Table 6.17: Frequency of participation (N=330).

Place	KW	LW
Frequency	%	%
Everyday	56.4	48.2
Once a week	9.3	27.4
2-3 times a month	11.8	7.8
Once a month	22.5	16.6

The presence of the majority of office workers and businessmen who work in the building in KW and LW contributed to value. This can be seen in the next engagement indicated in Table 6.18 where 50% of respondents in KW spend 9-12 hours in KW compared with 30% of respondents in LW. More respondents spend 1-4 hours in an open space linking KW and LW recreational activities and shopping. The frequency of visits will increase the level of familiarity with the environment. Involvement pattern is also supported by the results of the study showed that the frequency of visits is marked by the last visit of the respondents. Table 6.19 indicates that the majority of respondent's last visit was a week and a month ago. The majority of them visited the same place when they visit Kuching or Lumut. (See Table 6.20)

Table 6.18: Duration of involvement/tours (N=330).

Place	KW	LW
Duration	**%**	**%**
1-4 hours	34.2	43.5
5-8 hours	10.6	16.9
9-12 hours	50.4	30.2
More than 12 hours	4.8	9.4

Table 6.19: Last visit (N=165).

Place	KW	LW
Last visit	**%**	**%**
Last week	24.5	23.6
Last month	17.5	21.8
Couple of months ago	6.1	3.2
Last year	1.9	1.4

Table 6.20: Do you visit this place when you are in Kuching or Lumut? (N=165)

Place	KW	LW
Frequency	**%**	**%**
Yes	24.5	26.4
Always	13.2	18.4
Sometimes	12.3	5.2

EMOTIONAL TIES BY PERIOD OF ENGAGEMENT (STATIC)

	Happy	Security	Forgetting Problem	Attached	Meaning	Positive	Satisfaction	Spend Time
KW	2.87	2.15	2.51	2.94	2.78	3	2.94	2.6
LW	2.59	2.44	2.17	2.84	2.61	2.63	2.54	2.32
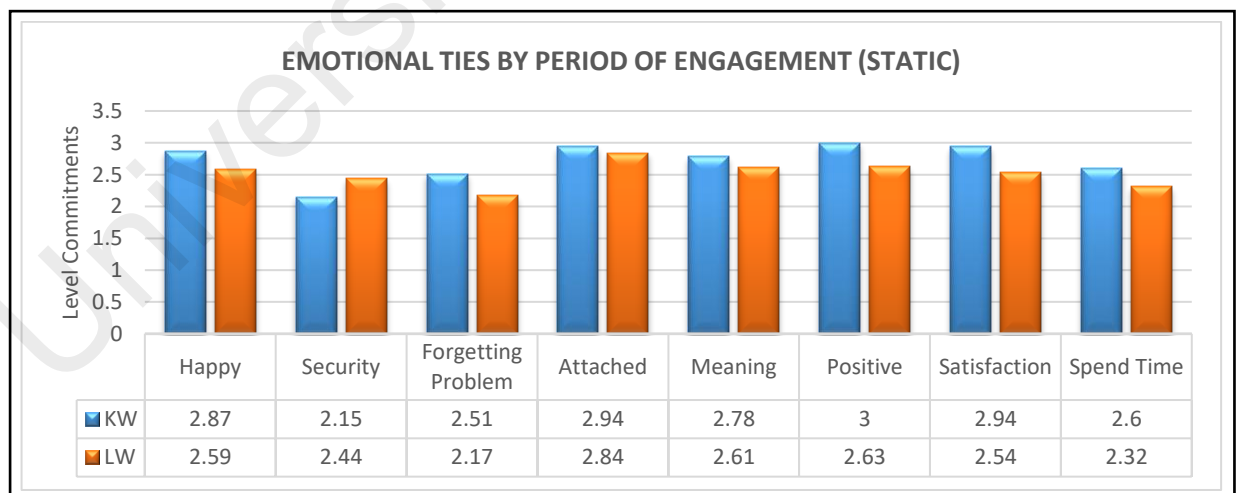
Figure 6.5: The level of emotional attachment by the involvement of the static respondents in KW and LW.

The results of Figure 6.5, explains that the static respondents use open space on a daily basis has been involved with open space for more than five years and have an emotional attachment level higher than those who were there less than five years. Through case in KW and LW, both groups of respondents (moving and static) is known to have a strong attachment to the attachment, positive effect, meaning, pleasure and satisfaction. Although this study showed less positive feelings about safety, security, and as a place to forget about problems. The difference in response between the groups is significant in KW and LW. Based on the information from the interview, patterns that occur can be attributed to the strength of a reflected identity with an open space that has its history.

Table 6.21 shows that the level of attachment to the place is different. It may be associated with feelings of insecurity and stability in ownership acquired during an in-depth interview. Linkages with the context of the review in line with the type of attachment to another place like home.

Table 6.21: The level of emotional attachment by the involvement of the static respondents in KW and LW.

Involvement	Attachment Level			
	KW		LW	
Residential Period	Less than 5 years (N=28)	More than 5 years (N=27)	Less than 5 years (N=25)	More than 5 years (N=30)
Average	2.75	3.05	2.34	2.57

Table 6.22 shows the functional attachment associated with the involvement of the respondents static. Respondents involved in an open space less than five years have an average value of 2.69 (KW) and 2.54 (LW); shows that the level of attachment to the open space is located above the average. This scenario is because the effect of the length of the period of engagement to open space. The majority of static respondents are those involved in economic activities; then continued involvement create a sense of stability and security in the economic activity.

Table 6.22: The level of functional attachment by the involvement of the static respondents in KW and LW.

Involvement	Attachment Level			
	KW		LW	
Residential Period	Less than 5 years (N=28)	More than 5 years (N=27)	Less than 5 years (N=25)	More than 5 years (N=30)
Average	2.69	2.86	2.54	2.66

Briefly, the attachment to open space along waterfronts affected by the involvement, the role and the needs of the user. It can be concluded that the longer and more frequent involvement to the open space, a stronger attachment been felt. Time and familiarity factor as a bridge between the attachments with the level of attachment. The study agreed with the opinion that people become more familiar with the area because they have high experience, that because the process of settling in a long time at a particular location, important events and stages of life or frequent visits (Riley, 1992; Moore; Graefe, 1994; Hay, 1998; Gustafson, 2001). In the context of open space, the experience related to economic and socio-cultural events, long-term involvement with the business activities and the frequent visits and shopping activities could be linked to the level of attachment to an area or activity.

6.6.2   The Influence of Familiarity

Questionnaire to the respondents was about their familiarity with the open space of the waterfronts based on their involvement, knowledge, and recognition. The results of the survey showed that almost all respondents are familiar or attached with the open space. This is supported by the static respondents that concerned with open space on a daily basis and have a close interaction with other users either working or visitors. (See Table 6.23)

Table 6.23: The level of familiarity to the place.

Familiarity (N=330)	KW %	LW %
Very familiar	42.5	41.5
Familiar	57.5	58.5

Table 6.24 shows the relationship between familiarity and emotional attachment. In response to the statement (I am very attached to this place) with the level of familiarity showed that majority of respondents were familiar with the place and attached to the open space (KW: 86.4%; LW: 89.3%). This is due to the existence factor in a long time or period, for example, traders often conduct their business in the area early in the morning and return at night every day.

Table 6.24: Relationship between familiarity and emotional attachment.

Familiarity (N=330)		
Attachment	Very familiar (%)	Familiar (%)
KW	86.4	48.5
LW	89.3	58.7

Based on the in-depth interview, familiarity is the most frequently cited by respondents when asked about the reasons why they love the place? Among the answers of the respondents is as follows:

"I choose to do business in this area because I am familiar with this area. In fact, I know a lot of visitors and residents in this area. "(Respondent 03: Hawkers - 11 years of involvement) LW.

The majority of respondents stated that they were familiar with the area because of the involvement and the frequency of visits made. Familiarity also reflected in the respondents' knowledge of the physical elements and changes in the places. Here is a fact that reflects the respondents' familiarity with the area and others:

"I am familiar with the area. There used to be an old market in the dockyard but was torn down into a parking "(Respondent 04: Hawkers - 15 years of involvement) KW.

"I will not leave this area without any reasonable excuse because I have a lot of regular customers here and have a good relationship with other traders." (Respondent 05: Hawkers - 10 years of involvement) LW.

It is understood that the level of familiarity of respondents associated with places, shops and open space that often they visit. Table 6.25 shows the usual places they visit and reflect the main function venue. It can be noted that the respondents also said open space as a whole as a familiar place, while others suggested special and famous buildings become visitor attractions.

Table 6.25: A familiar areas in KW and LW.

KW	LW
Pavilion	Jetty Wing
Square Tower	Marina Wing
Stalls	Esplanade Wing
Seats	Maritime Wing
Boating Deck	Bazaars
Jalan Main Bazaar shop houses	Seafood stores

In line with the familiarity, the results obtained are consistent with studies Manzo (2009), which emphasized that the most common place be a frequently used or visited by users. A strong connection to a place that is familiar contributes to a sense of belonging to a certain place. Briefly, interaction and transaction encourage familiarity to users and encouraging participation with open space. In this study, familiarity and involvement served as a guide for attachment of functions that can be associated with functional aspects of familiarity.

6.6.3   The Influence of Culture and Ethnicity

The survey shows how socio-cultural characteristics and dimensions influence respondents are limited by social, psychological and cultural places. Attachment to the place as function and emotion is shown with the physical, cultural characteristics and environment of people involved. Cultural identity defines a collective group to form their environment. The Cultural expression can be seen in each ethnic group through the items sold and the open space atmosphere, especially during the festive season. Static and moving users consider the atmosphere as a cause for an attachment of experience and memory. Ramadhan and Hari Raya Aidilfitri is a celebration and worship for Muslims, two events have changed the image of open space. At this point, the static user in KW occupied almost every piece of open space, including the main street to sell food and drinks to break the fast and selling clothing for the celebration. Here Malays, Indian Muslim and most of the Iban Muslims celebrate the festival each year as a symbol of religious and cultural practices as well. The presence of moving users is high at this time. The same thing happened in LW. Activities that show the dominance of entrenched ethnic population from the early settlement of ethnic and past generations.

Heterogenic users are in different places with different meanings based on experience. It is also influenced by the cultural background of the users. According to an in-depth interview, static respondents are the main users of ethnic and based on their opinion that the places there are important in their daily activities. The open space is seen as a rooted and identity to the public. The role of static users, especially the residents and shop owners in place to ensure continuity of identity is important because of the high level of familiarity, long-term involvement, and reliance on the places. The survey results in Table 6.26 shows that there is little changes in emotional attachment, and socio-cultural functions among ethnic respondents.

Table 6.26: The level of attachment to KW and LW by ethnicity.

Place	Ethnicity	Respondents (N)	Emotional Attachment	Functional Attachment	Socio-Cultural Attachment
			Average Value		
KW	Malay	52	2.88	2.96	2.98
	Chinese	44	2.50	2.59	2.75
	Indian	16	2.47	2.57	2.73
	Indian Muslim	24	3.04	2.93	3.01
	Iban	29	2.64	2.61	2.76
LW	Malay	60	2.67	2.78	2.82
	Chinese	54	2.65	2.72	2.80
	Indian	51	2.58	2.56	2.56

A variety of attachments that exists between ethnic in KW. Malay and Indian Muslim respondents indicate emotional attachment, and socio-cultural function to place a higher level compared with respondents Chinese, Indian and Iban. It was found that the Malay and Indian Muslims are the main users (static) engaged in business activities, working and occupies space along the waterfronts. The sense of belonging and socio-cultural has familiar with the interaction of social and religious commitment. LW had the same attachment. Based on the survey results to the entire ethnic Malay respondents have indicated that the highest levels of engagement followed by Chinese and Indian.

Interviews with static respondents from KW and LW indicates that the involvement in the business, which is inherited from family and socio-cultural attachment increase the level of attachment to place. Ethnic identity affects user's attachment to open space along waterfronts and contribute to improving the quality of the place. This is consistent with the theory that a strong sense of attachment to a particular place influenced by racial and ethnic identity (Rose, 1995) and the society culture affect the environment to a particular situation (Rapoport, 1977).

6.6.4   The Influence of Memory and Knowledge

The memory of the place where it shows the importance of a person's life experience. Factors associated with memory reflects the distinctive characteristics and elements of a truly memorable. It is found that there are differences related to the meaning that is collected from surveys and in-depth interviews. Research on the meaning of place shows that majority of respondents are not closely related to the past and has no memories of the place. In contrast, an in-depth interview shows specific experience capable of carrying respondents associate with their emotions. These results include physical changes and major social interactions with certain types of visitors, childhood memory when in open space with the family, during the celebration of attractive and entertaining or special cultural ceremony. Memories such as relocation due to increased physical, aggression that happened to hawkers and theft experience also gave a strong memory of the place. The following statements reflect the memory associated with KW:

"Before the waterfront develops, the natural riverbanks has always been a landslide. However, still, people come in the evening. "(Respondent 08: Resident - 25 years of involvement) KW.

"I still remember the first time I buy my school supplies with my mom, the shop is located in Jawa Road and Gambier Road."(Respondent 09: Resident - 15 years of involvement) KW.

Memory by respondent in LW is associated with joint activities and physical changes that occur. Among those memories include walking with their family when they still are child and boat ride to Pangkor Island. This was stated in the following response:

"I still remember coming here to take a boat ride to Pangkor Island. In the past, the facilities are not as they are now. "(Respondent 11: Visitor - 10 years of involvement) LW.

"In the past, my friends and I have been coming to this area for recreation. Sometimes we will bring our family together on the weekends. "(Respondent 04: Visitor - 15 years of involvement) LW.

146

Knowledge of open space mentioned in the statement that describes the open space repeatedly by respondents interviewed in Table 6.27. Evident that the majority of respondents share the same elements to be identified as the characteristics and qualities that reflect the open space. The elements were most associated with activities, landmarks, major shopping attractions, goods and products offer, the physical structure, the events and the general atmosphere of open space.

Table 6.27: Keyword description of KW and LW.

KW	LW
Well-known, a special place, night markets, street hawkers, boat ride, Sarawak Malay food, Masjid India, cheap, parking problems, various races.	Well-known, a special place, cheap, hawkers, access to Pangkor Island, tourists from abroad, tourism area.

The open space was considered a special place whereas the memory of the past is in the user experience. Memory become stronger when it deals with the transformation of open space from the beginning. Events and activities with friends or family known as memory and means. Knowledge of open space is reflected in all cases correspond to the degree of familiarity with the place.

6.6.5 Influence of Proud and Sense of Belonging

The survey results in Table 6.28 shows the proud and sense of belonging to a place. Average value 2.84 (KW) and 2.74 (LW) from the value of 4.0 indicates the proud and sense of belonging to a place that is quite strong. The results obtained in parallel with the length of the period of engagement and level of familiarity and meaning on it. KW showed a identification on the fact that the meaning associated with the influence of attachment and dependence place on the respondent.

Table 6.28: The level of proud and sense of belonging to KW and LW based on the average value.

Element	Statements		Average Value			
			KW		LW	
			Mean	Std. Dev	Mean	Std. Dev
Proud and a sense of belonging N=330	01	I feel one with this place (Belonging)	2.88	.575	2.57	.673
	02	I feel proud of this place (Proud)	2.95	.502	2.87	.565
	03	I feel part of this place (Part)	2.75	.589	2.65	.608
	04	I will contribute for the improvement of this place (Contribute)	2.65	.604	2.53	.672
	05	I feel very sad if the characteristics of the place is destroyed (Features)	2.95	.506	3.07	.482
Format of response: 1 = strongly disagree; 4 = strongly agree		Average Value	2.84		2.74	

Figure 6.6 shows that the majority of respondents strongly agree that the place characteristic is important to them and they are proud of the place (Statement 02: I feel proud of this place), while more than 50% of the respondents felt that they belong to the place (Statement 01: I feel one with this place) and feel a part of the people there (Statement 03: I feel part of this place). Although a lower value on (Statement 04: I will contribute to the improvement of this place), the answer to the statement (Statement 05: I feel sad if the characteristics of this place were destroyed) showed values greater than 75%. This indicates that the sense of belonging to the place influenced by the user attachment through the open space characteristics. There is a strong relationship between physical features and level of attachment to the place. The historical importance of open space such as waterfronts in Lumut and Kuching and cause much meaning for users as well as affect the level of their attachment to the place.
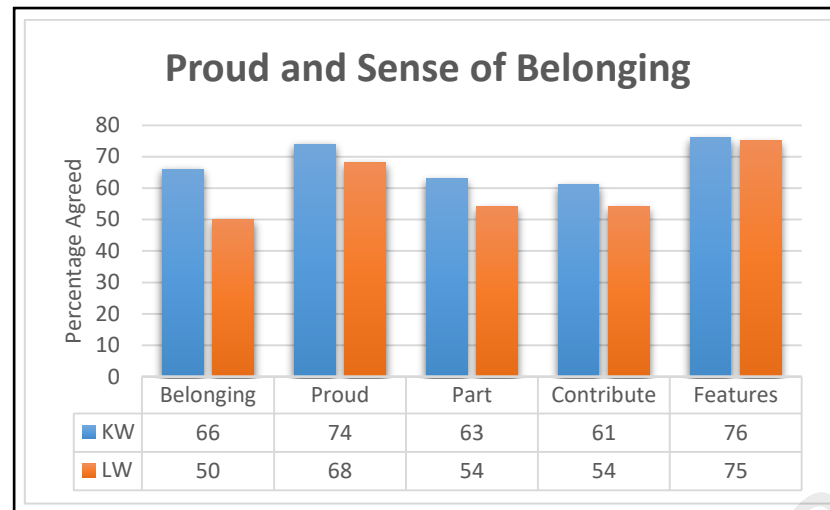
Figure 6.6: The level of proud and sense of belonging in KW and LW based on the percentage of respondents approved (N=330).

Based on the in-depth interview, proud and sense of belonging arise due to a variety of meanings. The period of engagement with the open space, the majority of respondents connect their pride and experience the place through time and the uniqueness of place compared with other locations. In the case of KW and LW, some respondents who use the word 'we' and 'us' shows a sense of belonging, territoriality, and the desire they feel after an extended period of not visiting open spaces mainly due to the general atmosphere of the place. Among the responses were:

"This place has a charm of its own; the atmosphere is always lively and entertaining. I like to be here and hope to do business here as long as possible. "(Respondent 01: Hawkers) KW.

"I feel nostalgic when recalling old memories. I used to gather with my friends in this area."(Respondent 07: Visitor) LW.
"I feel proud when tourists come to this area. It shows that this place is well known by outsiders."(Respondent 04: Resident) LW.

Respondents in KW indicate the formation of attachment between respondents who interact because of the role and the same experience. 'We' and 'us' are used to identify themselves during the conversation, it shows a sense of belonging to socio-cultural groups and the business community according to their role in open spaces such as street hawkers,

149

shop and stall owners. By the argument Steele (1981), people and activities is a fundamental element of the residence that generates a sense of spirit and enthusiasm of individuals or society.

Familiarity and frequency of involvement developing a sense of belonging shown by noticing the strong emotions. It is translated in the form of pride because of the different place characteristics and sense of belonging to a business space and attachment to economic and religious practices. This is in line with the opinion of Williams et al. (1995); Proshansky et al (1995); Shamai (1991) and Relph (1976) which states that the spirit of belonging generated by the identity of places: the symbolic importance of the place as a touch of emotion and relationships that give meaning and purpose to life. By the opinion of Smaldone (2002), stated the sense of belonging generate by the level of dependence to the place; the standard up to the level where residents perceive themselves to be closely associated with a particular location.

6.7 Changes of Level Engagement According to the Roles of Respondent

The third objective of the study was to identify the level of place attachment with the user's role in the open space. These aspects including emotional attachment and functional attachment. According to the assumptions of the investigation, stated that the level of engagement varies according to user roles. The following sections discuss those aspects.

6.7.1 Emotional Attachment According to the Roles of Respondent

The results of the survey show the importance of the static user in the sense of attachment. Average value 2.90 (KW) and 2.71 (LW) demonstrated that static respondents attachment on both waterfronts is strong. This pattern is associated with the current issues and

conflicts of interest among users with the upgrading project which may have caused a strong emotional response from the static users. The patterns found from the study describes the reaction of respondents to an in-depth interview. Static respondents expressed very strong attachment to their locations because they rely heavily on economic resources with this location. Long term involvement improves the broader knowledge on the history and transformation of open spaces such as waterfront. Static respondents indicated that they spend a longer time in the area to work and do business. The results from the moving respondents show that there are significant differences in the emotional attachment among KW and LW, despite differences in physical characteristics and socio-cultural background of the users. The average value in Table 6.29 shows that attachment to the waterfront open space was 2.60 (KW) and 2.56 (LW). According to the survey, moving respondents that stick to open space because of the functions of open space as an attraction for recreation and shopping.

Table 6.29: The level of emotional attachment in accordance with the role of the respondent (N=165).

Place Element	Respondents	Level of Attachment	
		KW	LW
		Average Value	
Emotional Attachment	Moving (N=82)	2.60	2.56
	Static (N=83)	2.90	2.71

KW has shown significant changes over the emotional attachment between moving and static respondents. It is described in the positive sense of attachment to the statement, meaning, positive impact, satisfaction, and pleasure because of the strong sense of identity and familiarity. The results show that users are more focus on safety and security during the engagement. As explained in the interview, crimes, gangsterism, and illegal trade activities contribute to anxiety and discomfort. It also affects the psychological comfort of static users. While in the case of LW, showed almost the same level of engagement between the moving and static users. This can be explained by the effect of popularity

151

open space for visitors from all ethnic backgrounds. In summary, there is a little difference in the emotional attachment between static and moving respondent due to different scenario and sensitivity. Static respondents expressed identity and dependability to the open space, while the moving users have an attachment function of open space.

6.7.2 Functional Attachment According to the Roles of Respondent

Table 6.30 shows the static user's interest in influencing the functional attachment to open space. Average value of 2.77 (KW) and 2.71 (LW) demonstrated that static respondents have a fairly strong attachment to the open space while the moving users are slightly lower (KW: 2.67, LW: 2.64). Although the level of unity and the economic dependence of static respondent described from the length of engagement, moving users engagement is also important in contributing to the vitality waterfront open space.

Table 6.30: The level of functional attachment in accordance with the role of the respondent (N=165).

Place Element	Respondents	Level of Attachment	
		KW	LW
		Average Value	
Functional Attachment	Moving (N=82)	2.67	2.64
	Static (N=83)	2.77	2.71

There are differences in functional attachment between the static and moving users. This showed that a place is important for both groups in providing the basic needs, commercial needs and recreational activities. However, static users are more likely to voice strong attachment to place dependency. The pattern shows a higher level of functional attachment for static users in all areas of study. This can be attributed to the continued involvement and long-term engagement between the static users and open space. However, differences in the degree of attachment between static and moving users are clear; it can be concluded that the open spaces are important and meaningful to the both

user group because of its ability to provide user needs and reflect their aspirations interdependence between visitors and traders.

6.8 Characteristics that Affect Place Attachment

The fourth objectives of this study are to identify the characteristics open spaces along the waterfront that strongly influence user's engagement in KW and LW. The survey results are based on the evaluation criteria (character appraisal) refers to the 5.0 Likert-scale value. According to a preliminary investigation, the variables identified strongly explain the place are: accessibility, understanding, vitality, diversity, choice, transactions, uniqueness, comfort and safety. Analysis of the relationship between the characteristics of the variables is made to understand how they affect the place attachment. In the analysis phase, the results of the urban evaluation obtained by the process of the survey data, interview and observation area. It is assumed that the attachment is determined by the variables function predominantly as a waterfront. Accessibility, transparency, and understanding of the physical elements give a role to the ability to effectively function as a 'locus' and the dependence of users on the waterfronts. The main features are important and identified are a strategic location, easily accessible, various types of accessibility, near the nodes of transport, good relationships, good layout, transparency, image, impact direction, easily identified, nodes and places of interest.

6.8.1 Accessibility

Based on in-depth interviews, promenade location near the accessibility of the various modes of public transport, close to the accessibility of the mod movement path, close to public transport nodes and connections to other parts of the city. The importance of location strongly expressed by user's static, generally traders and street hawkers. Waterfront promenade chose as a place for doing business because according to their

activity it is a strategic location. Features of the attachment to a location such as expressed by some street hawkers:

"Many people and tourists come here, that is why I chose here because it is a good location," (Respondent 1: The stall owner) LW.

"Easy to get here and the location is excellent, there are always people passed by. People from another country always come here too; I do not want to move anywhere else. "(Respondent 2: Hawker) LW.

"This location is good because near to the river bank, and then many people sitting in the park from afternoon until midnight." (Respondent 3: Hawker) KW.

The results of the evaluation described in Table 6.31 are above average (66.6%). With the average (70%) indicated that LW successful in providing access to the location. The walking trails are prepared so that users can easily access from every direction. However, the mode of public transport is limited, and that causes many users come with a personal vehicle or on a group ride.

Table 6.31: Accessibility

ACCESSIBILITY			KW		LW	
Criteria		**Performance Indicators**	**Rating (1-5)**	**Total average %**	**Rating (1-5)**	**Total average %**
Accessible and pedestrian walkway are well connected	01	Strategic location	5	20/30 (66.6%)	5	21/30 (70%)
	02	Reachable from every direction	4		5	
	03	The road that well connected	4		4	
	04	Short city blocks	3		2	
	05	Pedestrian walkway well connected	2		3	
	06	Easily accessible by various modes of transportation	2		2	
Total	30		20	3.04	21	3.33
Measurement rating 5: very successful - 4: successful - 3: fairly successful - 2: unsuccessful - 1: very unsuccessful						

The results of the evaluation of accessibility are shown in Table 6.31, and it is above average (KW: 3:04, LW: 3.33). It indicates that LW is more successful in providing access to opening space with walking trails and short city blocks for better transparency. Although the place has similar characteristics, but regarding accessibility and parking

154

layout, LW works better and also user-friendly for walking. Observations on KW and LW showed that the sidewalk in open space that connects pedestrians with the highway had connected well but physically not in good shape. On the other hand, the concept of 'culture' in KW contribute to the concentration of related activities such as sitting and eating. Pedestrian walkways in this area also performed well and encourage pedestrian movement.

6.8.2   Physical: Legibility

This section discusses the effect of understanding elements of physical and spatial in promoting attachment to the place. It consists of four most important aspects of understanding and influence of attachment from the respondents. Aspects such as the layout of the place, buildings, and open space, urban space elements: nodes, place marks and cityscape street.

6.8.2.1 The Lack of Trees, Green, Attractive Scenery, Landscape and Clear Signage

The negative response was recorded regarding greenery. This condition is caused by a absence of agreement in the ongoing series of pedestrian walkways along (KW) and lack of trees as an indicator to determine the walkway (LW). As a result of these observations also show that trees and greenery along LW significantly reduced, especially along the walkway leading to the Maritime Wing. However, shade trees can be found in the focus area at Jetty Wing, Esplanade Wing, and Marina Wing. The results of the observations in KW showed a strong identity cityscape street, images and landscape integrated. Walkways in KW influence it has managed to providing promenade with better characteristics, especially in providing organized street furniture. The presence of a few places that offer activities such as dining spaces with a canopy for shade and an interesting

sight, especially at night. In all cases, the assessment results are described in Table 6.32 and generally above average (KW: 3.83, LW: 3.00).

Table 6.32: Legibility.

LEGIBILITY			KW		LW	
Criteria		Performance Indicators	Rating (1-5)	Total average %	Rating (1-5)	Total average %
The physical image that is clear and easy to understand /identified. A place that is easy to navigate.	01	The layout of the building	5	23/30 (77%)	5	18/30 (60%)
	02	Scale and building height	4		4	
	03	Color and texture of a pedestrian path	4		1	
	04	Color and texture of the building	2		2	
	05	Signage and clear direction	4		3	
	06	Function of space/building	4		3	
Total	30		23	3.83	18	3.00
Measurement rating 5: very successful - 4: successful - 3: fairly successful - 2: unsuccessful - 1: very unsuccessful						

Ratings above describes a survey of perception, KW to be the most easily understood because of the diversity of buildings, road quality, clear signage and function space. This shows that open space in the LW lack of orientation for the convenience of users. This is due to the unclear signs and direction as well as the appearance of the building and the area. Physical elements such as pedestrian's walkways will contribute to better understanding and image (imageability) to promote a sense of familiarity with the place.

6.8.2.2 Buildings and Public Open Spaces: The Combination of Old and New

KW and LW designated as open space defined by the historic buildings, shop houses, and physical, historical value. According to the introduction, KW facade is different between the old facade and a new facade, facade of traditional and modern facades. It starts from the traditional shop houses to building hotel facilities, office with contemporary style. Based on the observations, the role of public open space in attracting users to engage in the area is very limited due to lack of appropriate space for certain activities. Instead, the pocket space along KW has been used as a space for relaxation and recreation. According to the analysis of the attraction of open space, the physical elements (buildings, open

space and public facilities) has been identified as an element that does not attract the attention of visitors as indicated by respondents. It can be attributed to lack of awareness about the need to have a better physical quality environment or the physical elements of the existing not interesting enough to be activity and social interaction, by the perceived inconvenience.

In a survey of KW, despite the positive response to the appearance of buildings and landscapes have been declared, but leisure and shopping activities in the area of Jalan Main Bazaar have been considered as an element of attraction when compared to activities and products offered in open space. This is associated with leisure and shopping as the main destination of visitors were in KW and nearby areas irrespective of the characteristics of buildings and open spaces.

The role of street furniture are also vital, the KW respondents said large trees, flower pots, river, sitting, rotunda, decorative lights, pillars and floor patterns pedestrians routes identified as elements of the cityscape street. While LW is characterized by the element of water and attractive lighting in the evening. This shows the importance of these elements to be identified and familiarity to the user in open space. Pedestrian walkway on the river bank and in front of buildings and public facilities and traffic in LW has contributed to the better quality and clean.

Open space is very easy to be customized with a variety of functions and uses of small scales, such as passive seating spot, cultural performances, street music, food stalls and night market. Observations show that the number of open space spots is still limited in the LW. Based on observations, the seat is not in the right area, then reduce the percentage of people to interact and passive activities. In KW, lighting at night is not enough,

especially in the area of sidewalk hawkers limiting concentration of involvement in that place. Results from the street cityscape shown in Table 6.33 shows a significant difference between KW and LW.

Table 6.33: Cityscape.

UNDERSTANDING			KW		LW	
Criteria	**Performance Indicators**		**Rating (1-5)**	**Total average %**	**Rating (1-5)**	**Total average %**
Cityscape	01	Cityscape street	2	14/35 (40%)	2	12/35 (34%)
	02	City parks and green area	3		1	
	03	Quality view	2		1	
	04	Display/landscape elements	2		1	
	05	Start building	3		2	
	06	Building material	1		2	
	07	Public buildings	1		3	
Total	35		14	2.00	12	1.71
Measurement rating 5: very successful - 4: successful - 3: fairly successful - 2: unsuccessful - 1: very unsuccessful						

6.8.2.3 Nodes and Placemarks Defined by Landmarks

The results showed that the respondents correlate placemarks and popular places (nodes) with famous attractions (the old buildings, stores/food store, and transport nodes) and business activities such as night markets and street hawkers. Placemarks (often understood as a landmark by the respondents) are buildings which have an important function as landmarks and old buildings.

In the case of KW, the respondent argued that the presence of sidewalk hawkers demonstrate the ability to create an atmosphere where leisure attractions, attracting users and visitors come to the place. Features place increasing involvement in various types of activities and should not be associated with the functional attachment of the respondents. The results of the evaluation characteristics of the nodes, landmarks and places marks (KW: 3.00, LW: 2.57) are presented in Table 6.34. The results showed that the nodes,

place marks such as historic buildings are not described as the most important element in KW.

Table 6.34: Nodes, landmark and place marks.

UNDERSTANDING			KW		LW	
Criteria		**Performance Indicators**	**Rating (1-5)**	**Total average %**	**Rating (1-5)**	**Total average %**
Node, landmark, placemarks	01	Building as a landmark/placemarks	3	21/35 (60%)	3	18/35 (51%)
	02	Special structures	3		1	
	03	Street hawkers attraction	5		2	
	04	Historical building	1		5	
	05	Transportation node	3		3	
	06	Space for special events	3		2	
	07	Markers and signs as a landmark	3		2	
Total	35		21	3.00	18	2.57
Measurement rating 5: very successful - 4: successful - 3: fairly successful - 2: unsuccessful - 1: very unsuccessful						

KW is more successful because it has direct access to the physical, visual as well as continuity and more identifiable physical image and sense of direction. This supports the continued engagement, choice of leisure and shopping. Accessibility and understanding of the physical element are important to support the introduction of respondents to the open space, participation in activities and familiarity with the place. KW strongly correlated with placemarks and street hawkers while LW correlated with the old and new buildings.

6.8.3 Vitality

Results from surveys and interviews indicate that the activity is regarded as the most influential elements for attachment to the user. The diversity of physical appearance, choice of activities, use of space and the people involved have become a major factor for attraction and involvement. The ability to maintain the vitality of the place is the existence of individuals and events show the function attachment.

6.8.3.1 Intensity and Movement of Pedestrians Enhance the Vitality and Engagement to the Place

Movement through public space is the central experience of the city, one of the most important factors in generating life and activities. Active open space and continuous pedestrian movement along the open space corridor that is supported by the diversity of its uses support the vitality of open space. Results of the study showed that there are important differences in the vitality generated by the presence of people in great intensity and their activities on weekends and public holidays. Monthly events and special celebrations enhance the vitality of open space. This was proof during the night market (KW and LW), in the month of Ramadhan (KW and LW) and monthly events. Street hawkers (KW) said the situation in this period:

"This area will be filled with street hawkers and crowded on the evening of Ramadhan, buying food to break their fast" (Respondent 1: street hawker) KW.

The results from observations show that KW has been designed to accommodate outdoor activities with good design to sit, eat and communicate. The existence of a dining area sheltered by a canopy and connected to the walkway is quite spacious with a beautiful landscape makes the atmosphere more interesting. It can be concluded that users are attracted to bargain with street hawkers activities (KW and LW), while other user groups are typically more interested in dining out and recreation. Based on interviews, it can be concluded that the vitality is closely linked with vibrancy, pedestrian, and recreation.

Table 6.35: Vitality.

ACTIVITIES			KW		LW	
Criteria		**Performance Indicators**	**Rating (1-5)**	**Total average %**	**Rating (1-5)**	**Total average %**
VITALITY To the extent any form of public support functions and human needs	01	Active open space	5	31/45 (69%)	5	26/45 (58%)
	02	Active pedestrian walkway	5		4	
	03	Mixed use	1		2	
	04	Intensity of pedestrian movement	5		4	
	05	Availability of public open space	4		3	
	06	Gatherings and assemblies spot	4		3	
	07	Node and intersection	3		2	
	08	Recreation spot	2		2	
	09	Working hours	2		1	
Total	45		31	3.44	26	2.89
Measurement rating 5: very successful - 4: successful - 3: fairly successful - 2: unsuccessful - 1: very unsuccessful						

Table 6.35 presents the results of a vitality (KW 3.44 - 69%, LW: is 2.89 - 58%). It shows that KW has recorded higher scores than LW. This shows the ability to contribute KW popularity through active walkways, public rallies, and gatherings, the availability of public open space and open in a longer period. The vitality of open space can be attributed to the ability of open space to successfully act as a focus for activity based on the discovery that the survey results are consistent with the results obtained.

6.8.4   Diversity and Choice

The following section discusses the characteristics associated with the diversity and selection of open space. Aspect discussed was the use of open space and diversity of activities, selection of products sold by hawkers and the variety of open space users.

6.8.4.1 The Diversity of Open Space Users Influence the Choice of Places to Visit

Users are essential elements in generating commercial activity and their diversity. Density and diversity users support the vitality of the place, contribute to the attraction and attachment. Results showed that mixing people from all races and diverse backgrounds to become one of the powerful features in open space (KW and LW). Thus, the ability of

open space to accommodate the needs and desires of users and the choices offered to a variety of economic backgrounds and socio-culture is necessary for the continued engagement.

The diversity of function and user role affect the diversity of activities in open space. This is consistent with the opinion of Dolbani (2000) from Bentley et al. (1985) that a variety of land uses, people, events, and experiences provide a mixture of perception where different users interpret the place differently and take different meanings. It was explained that the type of activity in open space is influenced by the characteristics of the user who occupied the open space. KW more strongly associated with the Malays and Indians Muslim, while LW gives more to the mix all ethnic backgrounds as well as foreign tourists.

Table 6.36: Diversity.

ACTIVITIES			KW		LW	
Criteria		**Performance Indicators**	**Rating (1-5)**	**Total average %**	**Rating (1-5)**	**Total average %**
DIVERSITY The level where offers diversity and choice	01	Various people and background	4	22/35 (62%)	5	19/35 (54%)
	02	A variety of cultural expressions	3		3	
	03	A variety of products sold	1		1	
	04	The mixture of old and new	3		2	
	05	Mixture, artificial and natural landscape	4		3	
	06	Various taste, sound, and smell	3		2	
	07	Various food and restaurants	4		3	
Total	35		22	3.14	19	2.71
Measurement rating 5: very successful - 4: successful - 3: fairly successful - 2: unsuccessful - 1: very unsuccessful						

Table 6.36 shows the results to place diversity (KW=3.14 and LW=2.71). However, LW considered very positive regarding diversity and backgrounds of people even rated as less successful in providing a diversity of choice for users. Survey findings can be explained that LW is much visited by tourists from abroad because Lumut is a gateway to Pangkor

Island. In summary, the results of this study show that diversity, choice, and mix of activities are important factors in ensuring the vitality of open space.

6.8.5 Transaction

The transaction is the main function of the open space; it has crucial influence in how it responds by respondents. The following section discusses the role economic activities and socio-culture interaction in promoting attachment, and factors interconnected.

6.8.5.1 Social and Cultural Interaction

These observations indicate the result of social interaction and culture established through personal interaction, economics transaction and socio-cultural. This is consistent with the argument Montgomery (1998) which states that the transaction based on the economic activity of the city and provides a space for social and cultural transactions through friendship, events, and occasions, that affect the shape of the attachment. Findings from interviews show that there is special attachment function between traders and street hawkers because of interaction with each other, and due to the long period of involvement in the same area. The frequency of direct interaction very clear when asked about their familiarity with the area. Most respondents recognize and interact with their fellow traders and well recognized.

The interaction of ethnic groups and cultures together enhanced and supported by religious and cultural activities (KW) as the Friday prayers and the occasional religious celebrations or cultural celebrations. In this situation, community and association with people who live in the area. Social attachment and culture can improve the level of comfort in open spaces. Shuhana (2004) emphasized the role of social transactions called 'hospitality' be reflected in welcoming visitors and users of open space and community

interaction in an open space in a way that would cause a sense of community and support the place attachment. Concluded that the open space is not only intentionally involve people to meet the requirements but also have a role in connecting them with other users occupying the area. Table 6.37 shows the results evaluation of the transaction (KW: 3.40 - 68%, LW: 2.80 - 56%), in which KW has been rated as more successful in transactions compared to LW.

Table 6.37: Transaction.

ACTIVITIES			KW		LW	
Criteria		Performance Indicators	Rating (1-5)	Total average %	Rating (1-5)	Total average %
TRANSACTIONS The intensity of business, information, communication and social interaction	01	Center services and activities	4	17/25 (68%)	3	14/25 (56%)
	02	Street hawkers/night market	5		4	
	03	Sales in the open space and the night market	3		2	
	04	Advertisement in open space	2		2	
	05	Social events and culture	3		3	
Total	25		17	3.40	14	2.80
Measurement rating 5: very successful - 4: successful - 3: fairly successful - 2: unsuccessful - 1: very unsuccessful						

Observations show that the buying and selling activities exist in open space. The economic transactions contributed to the revival of activity in the open space that can be seen in the activities of buying and selling a variety of foods and products. Respondents attached to the place because of its opportunities for business and employment. Cultural and social interaction is reflected in ethnic and religious unity.

6.8.6   Image: Legibility

Results from surveys and interviews explain the importance of the image of KW and LW in the place attachment although the reaction shows the diversity of its uniqueness, comfort, and safety of open space. The following section discusses the characteristics associated with the characteristics of a place affect attachment.

6.8.6.1 Uniqueness

One unique identity KW and LW is typical of people who work and depend on the business in open space. Despite constant changes in the type of product styles and prices, core business and target buyers unchanged. This can be explained by the ability to enforce a waterfront promenade identity shaped by commercial activities to serve visitors who are intimately related to the socio-cultural background of the users and dealers. Findings suggest that the respondent engagement and attachment to the waterfront promenade which is closely related to their human and cultural diversity. The following statement described the cultural characteristics of places:

"This place is different from others, outsider from Perak like to holiday at Pulau Pangkor, indirectly they had to stay in this area while going there" (Respondent 4: The shop owner 15 years of involvement) LW

"The special of this place is that we can see a variety of human behavior. Usually crowded on weekends, "(Respondent 2: Hawker; 10 years of involvement) KW

Briefly, respondents identify the mix of people from all races and background characteristics of various cultural places (KW). The presence of residents and visitors from abroad (LW) as the distinctive features that reinforce identity. It has been observed that the type of features that are appropriate to the needs of specific cultural groups and cultural image rooted to the place that can support a different atmosphere. Based on the expressions of culture that defined the locals, it is clear that the quality and experience of the object is manifested in a control perception of the uniqueness, strength and purity identity of the places involved.

Table 6.38: Uniqueness.

UNIQUENESS			KW		LW	
Criteria		**Performance Indicators**	**Rating (1-5)**	**Total average %**	**Rating (1-5)**	**Total average %**
Uniqueness and quality differences	01	An attractive open space	4	14/20 (68%)	2	13/20 (56%)
	02	Different from another place	3		4	
	03	Unique atmosphere	3		2	
	04	Known as the historic promenade in the city center	4		4	
Total	20		14	3.50	13	3.25
Measurement rating 5: very successful - 4: successful - 3: fairly successful - 2: unsuccessful - 1: very unsuccessful						

Results from Table 6.38 shows, KW: 3.50 (68%), LW: 3.25 (56%) indicate that KW is more successful regarding uniqueness. In summary, it can be explained that the special image place attachment can affect users. It is closely related to the emotional aspect of place attachment and the feelings associated with the unique elements of the local culture, historical places from memory, particularly waterfront promenade that makes it much different from other locations.

6.8.6.2 Comfort

Comfort is one of the important things that affect the attachment identified by respondents. Physical comfort, psychological and environment contribute to user satisfaction, easy and comfortable with an environment that encourages interaction and longer engagement period. The results show that LW has been seen as the most comfortable open space physically. The majority of respondents felt that the public promenade features high quality and good. The survey shows that LW is more responsive to the needs of users and pedestrians for comfort and convenience. Features an open space that can easily understand and accessible to pedestrians enhance a sense of direction and orientation in the area. The main elements that support the pedestrian experience along the waterfront promenade are the provision of seating and open space canopy for different

activities such as relaxing, eating, drinking, waiting and observing people. Pedestrian's walkway with shading creates a sense of protection from traffic flow adjacent to it.

From the survey findings, it was concluded that a sense of comfort or discomfort might be associated with emotional attachment to a particular place and function. Contrary to common patterns that exist, the majority of static users in LW participating in an in-depth interview, expressed comfortable and can work happily in the waterfront promenade despite some complaints about safety, the activities of the illegal and criminal. This can be attributed to a sense of belonging and a sense of economic security as a result inherited the family business and long-term attachment to the place. This contributed to the development of positive psychological comfort to be in open space and engage in trading activities.

Table 6.39 shows the results of evaluation characteristics of comfort (LW: 2.78 (68%), KW: 2.56 (56%). In summary, the environment is affecting the attachment of the user to open space. Cleanliness is a priority to attract the interest of people to visit a place, and it is maintenance can encourage a longer and psychologically safe.

Table 6.39: Comfort.

Comfort			KW		LW	
Criteria		**Performance Indicators**	**Rating (1-5)**	**Total average %**	**Rating (1-5)**	**Total average %**
COMFORT Level of place to be comfortable, relaxed and facilities	01	Comfortable to sit and relax	2	22/40 (56%)	3	27/40 (68%)
	02	Enough Parking	3		2	
	03	Good connectivity for walking	3		4	
	04	Good quality facilities	3		3	
	05	Clean environment	3		5	
	06	Well managed and maintained	3		3	
	07	Short distance to transport nodes	2		4	
	08	Streetlight	3		3	
Total	40		22	2.56	27	2.78
Measurement rating 5: very successful - 4: successful - 3: fairly successful - 2: unsuccessful - 1: very unsuccessful						

167

6.8.6.3 Security and Safety

Findings from interviews specifically suggested that LW is considered safer and more secure. In the case of KW, despite complaints from respondents regarding theft and purse snatching occur frequently, but the survey results show that the place is considered relatively safe. However, it has been observed in KW and LW there are police stations in charge of monitoring for 24 hours to ensure visitor safety. Interviews with staff in charge of tourism police in the area revealed that the number of crimes rose at the end and public holidays (KW), especially at night and during the night market. It occurs due to the identity of buyers and visitors. Drug addicts and immigrants often commit crimes. A feeling of discomfort and fear expressed by static respondents related to activities of drug addicts at night that affect the sense of security and safety to the waterfront promenade, and increasing vandalism of public facilities. However, KW and LW is still regarded as a place that has the comfort physical environment and a good level of security and safety. Both are considered to be unique and reflect the historical image, the local culture, and identity of the place. Physically and visually, waterfront promenade is different in features with a unique atmosphere.

6.9   Conclusion

The aim of this chapter is to identify the nature and level of attachment to a place and to determine the causes of the entanglement by respondent's role. It was found that the functional attachment is the strongest form of attachment. In addition to the effect of activities in support of attachments, meanings associated with place-value could exceed the value of the function. A sense of belonging to the community, existing ethnic and sense of belonging to business have emotional value and uniqueness of the place identity. Results showed there was loyalty to the economic activity that occurs on a daily basis,

loyalty to the business and society, as well as loyalty to the place as a primary source of income and daily necessities.

Based on the measurement of sense of place developed by Shamai (1991), it can be concluded that the level of attachment to the open space between level 1 to level 4, from the knowledge about a sense of belonging, emotional attachment and identity (uniqueness) of public recognition. Measurement in stage four involves a greater commitment to the environment. This indicates loyalty to the economic activities that occur on a daily basis, loyalty to the business community as well as loyalty to a place as a primary source of income and daily necessities.

The experience of place is personal and culture-oriented. The results show that the involvement contributed to the familiarity of the place, as well as affect the level of attachment. This study confirmed the assumption that the length of involvement influences attachment. The cultural characteristics of places and ethnic background affect the level of attachment described in the sense of belonging to a place. Memory and knowledge of place based on the high level of familiarity and reflects the level of attachment to the place.

CHAPTER 7: DISCUSSION AND CONCLUSION

7.1   Introduction

The waterfront design and architecture in our country have stood at a very impressive level, although it still has a lot to catch up for if compared with other developed countries. It has received support not only from the government but also from the local community which is starting to be exposed to higher-status life. Waterfront development connects people and spaces. It requires cooperation to reach a common objective (Benson, 2002). Waterfront developments should be planned in the form of public-private partnerships. Public authorities must guarantee the quality of the design, supply infrastructure and generate social equilibrium. Sustainable waterfront development should be developed not only in ecological and economic aspects but also socially. For this reason, the planning processes must be transparent, and they must provide meaningful opportunities for the involvement of people. In other words, the community should be informed and involved in discussions continuously from the start. Such an approach should be necessarily taken into consideration as an important element of sustainability and proper planning of waterfront development. (Giovinazzi & Moretti, 2010)

The geographical condition of our country, which is one surrounded by water has demonstrated its potential to become a developed maritime country. The existing number of waterfront in the country does not reflect this. With the country being surrounded by water, such activity can be developed if the effective concentration is given. Furthermore, surrounding buildings within waterfront development enhance public spaces. Each building develops on the waterfront should increase activity in the public areas nearby it. There should be a mix of uses, with seamless interaction between

inside and outdoors. For example, high-rise towers that lack any public uses on the ground floor are noticeably in front of water based. They usually create a wall that physically and psychologically shut off the waterfront from surrounding area. Waterfront development will increase substantial community and economic benefits. There is no reason for a waterfront to sit empty. A lot of programs and occasion can be scheduled up to enlighten the place. Roughly, people enjoy being by the water at night if appropriate lighting and special events make them feel welcome and safe. The best waterfronts feature amenities that increase people's comfort and enjoyment. A bench or waste receptacle in just the right location makes a surprising difference in how people choose to use a place. Lighting strengthens a square's identity and can draw attention to specific activities, entrances or pathways. The public monument is a great attraction for children of all ages to come together. Whether temporary or permanent, amenities help establish a convivial setting for social interaction.

The trend has been stated very clearly here that the running of the waterfront development has been done without any accompanying side-activities. It is also mentioned in several comparative cases referred to in the literature section. However, the percentage of success of a waterfront development normally depends on the support of the local community that keeps on changing. In other hand, waterfronts flourish when they can be accessed by means other than private vehicles. In, Stockholm, Sydney, Perth, Helsinki, Hong Kong and Venice, people head to the waterfront via boat as much as by land. Access by foot and bike are a crucial element of the transportation mix, which is why many of the most beloved are crowned by pedestrian promenades and bike lanes. People feel easier and comfort when not overwhelmed by traffic and parking lots, creating a climate that fosters a full breadth of waterfront activity. The greatest waterfront destinations are found in cities that truly orient themselves to the

water. Their waterfronts define Stockholm and Venice, and residents and visitors alike naturally be there. Making the most of the local identity, history and culture stimulates widespread interest in the waterfront and creates a unique sense of place. The water itself is the greatest asset of any waterfront and should become the centerpiece for programming and activities. This can include traditional marine uses such as a ferry terminal or fishing port, which helps preserve a place's identity. Additional activities may include boat tours, restaurants, fishing, kayaking, swimming and other more. Many of these activities not only attract users to the waterfront but also generate interest among onlookers.

7.2   The Form and Level of Attachments

The study found that a form of attachment produced by the environmental aspects of psychological experience based on user insights and qualities are at the place. The results showed that a very strong attachment to the waterfront is formed by emotional and functional factors. The important waterfront functions may be associated with importance in meeting the goals and needs of individuals as well as providing conditions to support the required activities. The majority of users stated that the place is the best choice to support their activities and it is essential to generate their everyday lives. In this situation, the functional attachment is seen as a basic platform that binds people and places in joint activities.

This study shows that the level of economic dependence on the waterfront is very high. This is reflected in the pattern of daily involvement and frequency of visitors visit the area. It is also reflected in the level of familiarity because of longer period engagement on the waterfront. This situation can be attributed to the Smaldone (2005) that reliance

on a strong relation between the people and places that are special and to the extent to which residents see themselves closely linked and dependent on the area.

Based on this study, it can be considered that the users emotionally tied to the waterfront. The form of emotional attachments forms developed as a result of meaning and important of place on the lives of users. Place attachment evokes feelings and emotions to the place because the level of socio-cultural and familiarity establishes identity and place. Emotional attachment to the place described in the ability to meet the user's psychology needs that stir their emotions. The response explained it, cares, pride, emotion and a sense of belonging expressed by the respondents. The identity of the place generated through the user experience on the site, the elements are familiar and have a sense of space. Respondents that give a strong emotional reaction are the people who are actively involved in activities at the waterfront for example in businesses and hawkers. They are more concerned with the area. Community identity based on ethnic background gives meaning and purpose to the lives of users. The study explains that feelings of affective and behavioral aspects will show the meaning and importance of a place to users.

The results showed that the level of attachment to the waterfront is strong. The form of social attachments will exist in the user's attachment with others that engaged in similar activities until influence the place attachments. This is seen when the respondents identify themselves in uniting with other people with whom they interact and share experiences. The terms 'we' and 'us' used during interviews with researchers to demonstrate a strong sense of belonging to their role in the waterfront. In this case, the public and socio-cultural attachments are their primary residence component that generates the attachment, sense of belonging, community spirit and community. The

results of this study may be associated with the theory of place identity by Davenport and Anderson (2005) that the characteristics of the physical environment, activities, and experience in environmental, phenomena and social processes in which meaning is translated into a strong emotional attachment to influence attitudes and behavior.

7.3 Meaning Associated with Waterfront

The users experience dealing with the physical, visual and symbolic place. In this study found that users are functionally and emotionally tied to the waterfront because of the diversity of meaning and level of important. Meaning associated with places on personal and group experience. The results showed a stronger meaning explained in economic activities, and the atmosphere is different, not only from the physical appearance of the building and architectural images. It is supported by the opinion of Pellow and Low (1992) that the constant activity contributes to the feeling of attachment to the place. However, the physical elements are considered as a vital in supporting activities. The meaning of function, emotional and social described as the main reason the place will continue to be loved and felt necessary. The results showed that the influence of the physical elements in the construction of human experience, meanings, and desires, social relationships, emotions, and thoughts are important aspects that affect meaning. However, in the investigation of the social and cultural relationships, memory and personal meaning contribute to emotional attachment and a sense of belonging. The attachment to the place evolved through my experience and thus form part of personal identity.

The importance of the activities associated with open space where users can put themselves and develop their meaning and attachment. Waterfront is the critical to place to find a source of income and the diversity of different cultures. The user's relationship

with waterfront developed as a result of continued involvement and commitment to the places because of the opportunities on business and employment aspects. Meanwhile, the cultural and social interaction can be described as ethnic and religious unity. In the case of open space, functional attachment aspect is stronger in describing the meaning associated with place attachment compared to the emotional aspects. This aspect includes the level of involvement, function, familiarity, transaction and economic attraction. However, the meaning and concept of the place can be threatened by a change of image and urban physical function. The importance and significance of the place will remain as long as the waterfront serves as a place that can meet the needs of users. Other factors have potential to affect the development of place attachment. The results showed that repeated experiences to the places are required by the user or group to build attachment and meaning to the place. The continued use encourage a sense of belonging and personal identity to establish the significance and identity of the place.

In the case of KW and LW, meaning in term of the waterfront as open space has been developed through basic needs and economic. The identity of its space has been shown in the identity of the dominant culture in the way of life and their beliefs. It has been proved by Relph (1976) that the spirit of the place involving the particular interests derived from past events and present conditions that shape the identity of the place. However, in the modern city development, a special place is generated by the sense and spirit often experience a reduction in the appearance of the image and economic functions that are not linked with the interests of historical, social and cultural. Thus, the identity of the place is vital for meaning can be developed in a way to maintain the essence of the history of the waterfront such as KW and LW. Changes in physical appearance and open space activities can reshape the meaning and importance of the

place due to a change in the pattern of uses and activities. However, memories of the past were able to maintain a sense of belonging to the waterfront.

7.4 Factors that Influence the Level of Attachment

The following sections will discuss the factors affecting place in the selected context. Among them is the length of the engagement, the familiarity and the characteristics of the socio-cultural.

7.4.1 The Influence of the Involvement and Familiarity

Attachment to the waterfront more visible to users depending on the area of economic factors. The answers obtained from interviews showed continued involvement in developing familiarity. Such participation contributes to a strong sense of attachment and evokes emotional and social attachment. Static respondents who had been involved with waterfront for an extended period indicate the facilities and the importance of the place to them. Therefore, the continued involvement of developing functional attachment bind the user to open space. The results showed that users were attracted to the atmosphere and the comfort of the place because of familiarity and frequency of visits they make. The results indicate that familiarity with waterfront reflected in the ability for users to identify the location and elements in it. It relates to the location understanding, visual recognition associated with the capacity to recognize the place and the interaction of the places they visit. Respondents also associate familiarity with the physical elements that frequented the elements, such as space or shop they use in their activities. Respondents also identified the waterfront as a place that familiar to them, while there were others who said the famous buildings and sites that attract them. This assertion is supported by a static user who involved with waterfront every day and has a close interaction with other users who are working or visiting. The majority of

respondents are very familiar with the waterfront and feel bound by them. In conclusion, time is an important factor in fostering a sense of place that makes a different and meaningful to the users.

7.4.2 The Influence Characteristics of the Socio-cultural and Ethnic

The research found that ethnic identity affects users attachment to the waterfront and contribute to a sense of place. In line with the theory Rapoport (1976), in the case of a pluralistic society, the culture plays a major role in determining the identity of the groups that affect the characteristics and identity of their place. The influence of cultural identity on the place attachment is very clear from the dominance of ethnic backgrounds such as Malay and Chinese residing and doing business in the area. The sense of place often associated with racial identities and ethnic (Rose, 1995). The results showed the influence of culture in shaping the open space is very clear on the waterfront (KW and LW) and described in the sense of belonging. In line with the theory of Low (1992), the place attachment involves shared cultural affective meaning and activities related to the originating source of culture and history. It is clear that the period of engagement, commitment to families with inherited businesses and attachment to the group that had cultural similarities enhance place attachment.

In conclusion, the influence of ethnic and historical past can affect the atmosphere in which our way of life, culture, and beliefs to survive in people's lives. Special qualities in a society based on ethnic and religious backgrounds maintain the identity despite the changes and transformations in the economic and visitors. This can be attributed to the cultural dimension at a place that affects the way of place experienced by people (Lynch, 1960).

7.5   Implications for the Field of Planning and Urban Design

This research provides an integrated approach to theory and experience in developing better places based on the field of urban design. Implications of the study for the planning and urban design in the local perspective are important in opinion as follows:

7.5.1   The Importance of Place Attachment on Improving the Sense of Place

In this study, efforts to develop an open space especially waterfront as a place, forming the characteristic qualities of these places should be different from other places that can be identified regarding the quality in binding the user to the site. The form and level of engagement can give clues about the importance of a place for the user. In the context of public open space, the form of functional attachment plays a major role in creating a different atmosphere to the area. Therefore, any decision to repair the area should take into account the predominant function where required by the user and prove by the way they put it together with activity. For the open space with historical elements, although lacking in physical quality the importance of open space as a place for recreation can be affected by the attachment. This is considered to be the main features of different locations in the same city. Therefore, it should be taken into consideration in formulating the concept of redevelopment in the city. The results showed that the improvement in the understanding and comfort of the historical open space could keep their sense of place.

Looking at the form of emotional attachment, it can provide valuable information on the actual value of open space based on the user's perception of the place. Meaning in connection with a place can be translated in a project to upgrade the image to enhance the attractiveness of the place to visitors or tourists. Based on the findings, static users expressed their strong attachment and a sense of place. For example, the existence of

hawkers as the person who responsible for turning places and contributing to creating a unique atmosphere at the open space and improve the sense of place. Therefore, static users (hawkers) should be seen as a valuable reference for improving the quality perception and experience of the place.

7.5.2   Considerations to Maintain the Identity of a Place

Research has shown that the place attachment has a significant contribution to the establishment of a sense of place. Various meanings are translated in attachment function, emotional and social, and influenced by the involvement, familiarity, and level of economic dependence. Therefore, if a place becomes familiar because of the length of participation, it will be easier to develop the union between people and place. If a place unites with the context, it is easier to achieve a lasting meaning for longer and deeper. Continuity planning and urban design should consider existing user attachment to the place so that the elements that are familiar and meaningful to them are not destroyed. The urban designer must be able to identify the values that can be developed through such a spirit attachment ownership to create places that are more meaningful.

Weakness on place identity usually happens when the meaning of the place does not integrate with the local culture and way of life which may cause the attachment to be destroyed. The results show the power of open space is manifested in the cultural characteristics of the dominant ethnic group occupied the area. Therefore, local urban design strategy should aim to apply appropriate design concept for the ethnic communities and reflect their precious identity. Feature and identity must be maintained to ensure continuity of meaning and background of human attachments to their environment. Place attachment contributes to the formation and preservation of the identity of place and improves personal and cultural identity.

7.6   Research Contributions

There are four significant contributions in this research. Among them are:

i)   Research supported by using the place-based concept in urban design qualities that are not fully exploited by the local urban design practitioners and the whole world. Research on place attachment has made a significant contribution to our understanding of human relationship to a place. This study has confirmed the important aspects of the human experience in the context of the city. This research is important in improving the quality of life of users in an open space on the waterfront and ensuring that no form of intervention could threaten the sense of attachment and belong to a place they have. The framework should be used in research that integrates the psychological aspects related to the physical aspects and socio-cultural importance in determining the open space.

ii) The concept of place attachment has been studied elsewhere in the context of the forest, outdoor recreation and tourist destination that has a relationship between people and their home communities. However, no studies in the context of open space, especially in a region with many cultures such as Malaysia. This study contributes to the literature associated with the place, features and place attachment in the context of place in the city, especially waterfront. It can increase the knowledge on the identification and interpretation of place and place attachment of a particular user in the context of physical and socio-cultural. This study is also important to inform the feature and a unique identity at the city center of Kuching and Bandar Lumut based on the effect of the characteristics of the socio-culture in shaping the city center. In fact, the historic open space is regarded as a necessary

support attachment and meaning. Therefore, there is a need to regulate urban design strategies appropriate to maintain the identity of the place.

iii) The investigation resulted in the relationship between the physical and psychological dimension of a place in urban design. It integrates aspects of meaning and attachment viewing and evaluating place. This research focuses on the psychological aspects of the environment, in which users with their perceptions and feelings about the place is considered as the principal source of reference for determining the place uniqueness. It also proves that user perceptions vary due to a change of image and features. Place attachment can contribute to a positive perception of a place in the city center.

iv) The research provides a strategy to maintain the attractiveness of public open space by identifying the uniqueness of the place. The framework was developed to identify interesting features that can bind users and meanings that cause their attachment to place can continue. Indirectly, it will increase the value of the place as a tourist attraction and can be beneficial to the tourism industry and the local economy.

7.7   Recommendations

This section provides some theoretical and practical recommendations for the case of waterfront based on the analytical generalization of the results from literature and data collection.

i)   Set clear ambitions

Every waterfront development needs to establish clear ambitious about its future. This vision can guide the development of an integrated strategy for tackling physical, social and economic issues at the same time.

ii)   Public goals are the primary objective

The best solutions for revitalizing waterfronts is put public goals first, not private short-term financial objective. As long as redevelopment plans follow to the notion that the waterfront is an inherently public asset, it will be relatively easy to monitor the rest of the steps here. Public participation and communication strategies must be used to build up societal and political support and ensure that the local community needs will also be addressed.

iii)   Provide easy pedestrian access to waterfront

Bringing people to the waterfront and providing an integrated network of open space and pedestrian links. It covers pedestrian access both to and along the waterfront. The local authority has made more consideration to facilitate pedestrian access to the waterfront. Waterfronts flourish when it can be accessed by means other than private vehicles. Access by foot and bike are a crucial element of the transportation mix which is why many of the most beloved are crowned by pedestrian promenades and bike lanes. People feel more at ease when

not overwhelmed by traffic and parking lots. Where streets are necessary for commercial deliveries or access to retail or marine uses, they should be designed to minimize their impact on pedestrian safety and enjoyment.

iv) Quality design

Quality design of buildings in this location is of particular importance especially of the current generation of new reclamation and redevelopment. Quality design should involve both avoiding dull, and inappropriate buildings such as the wall effect created by long continuous tall facades should be avoided. Furthermore, quality design can enhance the scope for public enjoyment of the recreational and scenic potential of the waterfronts. It should apply not only to major buildings but also to the detail of open spaces, promenades and landscape areas. At present, there are few promenades offer adequate shade to permit comfortable use in hot weather such in Malaysia. Other marine related uses can be introduced along the promenade edge so as to create a vibrant edge between land and sea such as floating cafes and restaurants.

v) Integrate or connect historical buildings with waterfront

For example, some Lumut historic buildings were originally located close to the waterfront. Such buildings include; early shophouse, 1st transition shop house, 2nd transition shop house, art-deco shop house, Straits eclectic, Minnan facade design and Saracenic facade design. An iconic structure can be boon to the waterfront, as long it acts as a multi-purpose destination. Where possible a clear relationship between these buildings and the waterfront should be generated through physical and visual links. This can help to maintain an appropriate setting for such buildings and allow them to be appreciated by recreational users of the waterfront.

Furthermore, it will enhance the value of place especially at historic open spaces as a tourism points.

vi) Alternate activity and peaceful areas

The shores of the waterfronts are very extensive, and it would be impractical to attempt to create a high level of activity and visual excitement along the waterfront. The most appropriate strategy would be to define some clusters of high activity containing attractions and to alternate these with lower key peaceful waterfront along the intervening stretches aimed at more passive enjoyment. High activity includes marine activity on the water body, as marine movements either in the piers and other landing places offer particular visual interest to waterfront users. Water event areas can be defined in different areas, at which special events such as boat races, ship parades, and others can be held while being visible to a large body of spectators on the waterfront. Also, waterfronts may serve as either high activity or low key elements depending on theme and purpose.

vii) Provide direct access to waterfront

Waterfront accessibility comprises not only ease of movement along the waterfront but also ease movement to the waterfront from hinterland areas. An important urban design principle is, therefore, to provide convenient and attractive direct access from public transport points to the waterfront.

7.8   Conclusion

This study describes the place attachment has a significant contribution to the sense of place. Various meanings are translated in attachment function, emotional and social, as well as influenced by the involvement, familiarity, and level of economic dependence. Waterfront open space in KW and LW has become important to users as a place for recreation attractions, economic and cultural diversity. The open space meant as a reflection of self-identity and group. The historical importance of open space as one of the earliest open public space in Kuching and Lumut generate much meaning to the user in contributing the level of attachment to their place. Research has made it clear that the place attachment must be one of the factors to be considered in the design of urban revitalization.

The city design is the outcome of the best collaborative art. It stresses on the change of the environment and the idea of the environmental change that will benefit the public as a whole as intended. Every design discipline and professional related to it is involved in the city design through their respective interests. If improvement can be performed from time to time, an acknowledgment needs to be done to combine the benefit in this field. However, city design is an ongoing process in shaping the image and identity of the city, its surrounding and the community environment. The quality of the city design relies on the quality of designing the objectives and design outline used to achieve it. The understanding of how the city and the habitat function, can help determine the objectives, although the decision made on what should and should not have happened normally hold firmly onto the political issues.

Influence of waterfront development increases the assets and the land around it. For example, when a development area is provided with various facilities, accessibility, comfort, safety, and infrastructure, it can attract the arrival of the local community to settle down and live in. Also, to the demand and the surrounding attractions, it will indirectly attract investors within and outside the country to invest in and boost economic developments. Land value also increased. Waterfront development will open up more opportunities for the residents to improve their quality of life. Before the development of the waterfront, dealers or traders carry out their business activities on the road shoulders. However, everything changed when the development is realized. Business building centrally located with facility and much better than before. This also makes it easier for visitors to buy their products.

Geographically, the states in Malaysia are close to the coast and the sea. If these assets can be developed wisely and well planned, it can improve many aspects. Cooperation between local authorities and the NGO's, in ensuring that the environment is preserved and developed. Successful or not each development is how to develop from its foundation from the basis. If the fundamentally are weak, then it will fall. Similarly to the waterfront development, aspects such as environment, social, economic and urban design elements applied positively and well planned to improve the quality of the waterfront development. Furthermore, too much attention to the design of the buildings for developing the land to the waterfront and not enough focuses to the waterfront itself. Surrounding communities are being ignored in the planning process. The waterfront should start with a water planning and not a land planning because whatever happens in the water should be the key factor for what happens on the ground. The water planning should develop as much excitement and economically activities in the water as on the land, whether for the port, entertainment, recreation or other uses.

One of the main elements in urban design is accessibility. However, common mistakes we can see at the waterfront developments is waterfront remains separated by highways, barriers, train tracks or another human-made blockade. This approach seems to keep the waterfront isolated from the development and make difficulties for the public access. Waterfronts area should integrate with and enhance what already exists. The master plan should be an integral part of what is there. The plan should enhance the area and not separate from it. The history, culture and existing architecture of the area should be the driving force behind development criteria.

This research has provided urban design principles to use place-based approach for creating quality places in town that are better for users in the context of a city in Malaysia. Place attachment developed based on the quality of tangible and intangible familiarity and uniqueness by users. It is important to interpret the space as a place for a unique feature not only caused by an external physical appearance of the city and then the perception of generalized to set it. It is understood that place experience raised by the sense of place and spirit of place as the atmosphere and translated in attachment function, emotional and socio-cultural as well as the meaning as defined by the user.

The investigation showed that the waterfront in KW and LW are important in supporting the continuity of activities as a center of attraction and a means of highlighting the cultural diversity and identity of the individual or group. The investigation concluded that the place attachment is a factor that must be considered in the designing of places in the city in particular when redevelopment (revitalization) become one of the choices. Research to further strengthen the knowledge and practice of urban design in filling the gap between the meaning of relating to the place attachment and the physical element sense of place in the context of the waterfront in

Malaysia. Various dimensions, elements, and relationships that explain the meaning associated with physical elements developed as a guideline for any redevelopment and research on places that are appropriate to the context. The investigation also concluded that experience to a place not only to physical but also perception and psychology. Both aspects are interconnected and affect the sense of place and attachment to the place. Place attachment is a positive element that can contribute to the sustainability of the sense of place and place identity that gives individual satisfaction, psychological and joy to the users.

All in all, the study outcome obtained has reached the research purpose and objectives that have been outlined. However, this study lack of time and energy. Therefore, this study should be continued and expanded, by studying related aspects so that the outcome obtained can be made the points of reference in determining a more efficient and effective place attachments development, for the benefit of every party involved.

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1. 2nd International Conference on Innovation and Technology for Sustainable Built Environment 2014 (ICITSBE2). Paper; Revitalizing Waterfront Development through Urban Design Elements. 27 May 2014, at Impiana Hotel, Ipoh, Perak Darul Ridzuan, MALAYSIA.

2. 2nd International Conference on Innovation and Technology for Sustainable Built Environment 2014 (ICITSBE2). Paper; Urban Transport Planning: The Impact of Traffic Demands on Urban Sprawl. 27 May 2014, at Impiana Hotel, Ipoh, Perak Darul Ridzuan, MALAYSIA.