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Stakeholder Responses to Vandalism at Visitor Attractions: a Singapore and Bangkok Comparison

Thesis submitted by

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for the degree of Doctor of Philosophy (PhD)

in the College of Business, Law and Governance,

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STATEMENT OF SOURCES

Declaration

I declare that this thesis is my own work and has not been submitted in any form for any degree or diploma at any university or other institution of tertiary education. Information derived from the published or unpublished work of others has been acknowledged in the text and a list of references is given.

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DECLARATION OF ETHICS

The research presented and reported in this thesis was conducted within the guidelines for research ethics outlined in the *National Statement on Ethics Conduct in Research Involving Humans* (1999), the *Joint NHRMC/AVCC Statement and Guidelines on Research Practice* (1997), the *James Cook University Policy on Experimentation Ethics, Standard Practices and Guidelines* (*2001), and the James Cook University Statement and Guidelines on Research Practices (2001).*

The research methodology received clearance from the James Cook University Experimentation Ethics Review Committee (Human Ethics Approval Number: H4139).

Bhati Abhishek Dalip Singh   Date

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"Everyone has a purpose in life…a unique gift or special talent to give to others. And when we blend this unique talent with service to others, we experience the ecstasy and exultation of our own spirit, which in the ultimate goal of all goals" –Deepak Chopra

ABSTRACT

This PhD project considered specific tourist behaviours designated as acts of *tourist vandalism*. The study sought to understand stakeholder responses to the tourist linked vandalism. The context of this work was the tropics - specifically the popular tourism destinations of Singapore and Bangkok in South East Asia. Stakeholders considered were the community, managers of tourist facilities and government agency personnel responsible for policy matters related to attraction management. Each group of stakeholders held potentially different perspectives and likely responses to deviant behaviours. Component parts of the study considered the responses which aim to reduce or eliminate deviant behaviors.

The research employed a post-positivist methodology to investigate the extent of vandalism, stakeholder attitudes, levels of community participation, nature of intervention strategies and future intentions related to visitor vandalism and its control. By applying the defensible space and crime prevention through environment design (CPTED) constructs from environmental design and management, the extent and nature of vandalism at visitor attractions was initially explored. In the subsequent parts of the work, the community, site managers and government officers' responses were all investigated through surveys and structured interviews.

Building on the major themes in the background literature reported in Chapters One and Two, Chapter Three specifically reported on a physical audit of 22 matched sites and discussed the prevalence of acts of property damage/vandalism at visitor attractions in the two countries. The visitor attractions were grouped into clusters with the help of the SPSS cluster analysis program. The cluster analysis revealed that sites under the sustainable cluster employed effective vandalism prevention and control practices in their operations. In comparison, the vandalised cluster evidenced mismanagement and lack of stakeholder participation resulting in widespread property damage. The other clusters were characterised by poor management practices, lack of ownership and participation or poor enforcement.

Chapter Four evaluated community responses, their involvement with other stakeholder groups in joint action to address vandalism and desired levels of involvement to arrive at a better understanding of community's role in addressing property damage. The study found that there was a widespread view that vandalism was a serious issue but there was also optimism in both locations, especially Bangkok, that the problem would be reduced in the future, although willingness to be involved in active intervention was not high.

The third and final study in Chapter Five concentrated on the attitudes and responses of stakeholder groups such as site managers and government officers to property damage at visitor attraction under their supervision. This particular chapter explicitly highlighted the differences between responses of key stakeholder groups. Four key stakeholder groups were identified for the study: site managers in Bangkok (BSM), site managers in Singapore (SSM), government officers in Bangkok (BGO) and government offices in Singapore (SGO). The interview transcripts of the four groups were analysed with the help of relatively new and powerful content analysis software, Leximancer. The findings showed significant differences in the attitudes of the four stakeholder groups in terms of seriousness of property damage as a problem at the visitor attractions under their supervision.

The concluding Chapter Six linked the findings and conclusions to the overall research problem. The chapter described the contributions of this research as a novel comparative study involving tropical tourism destinations in the Asia Pacific region. The limitations and challenges of the work were presented, and then the future directions of this area of inquiry identified.

The research undertaken in this thesis has expanded upon the existing body of scientific knowledge and understanding in five main ways. First, it employed existing theoretical frameworks such as defensible space and the CPTED approach to crime prevention within a different context, that is, visitor behaviour at visitor attractions, and from a different

conceptual focus of behaviour intervention instead of motivations to behaviour. Second, the physical audit study identified important site characteristics of the attraction property's design and management relevant to managing the tropical Asian context. Third, for the first time, arguably, it compared attitudes towards vandalism within the local community, in different countries and across a wide range of attraction sites. Fourth, the study evaluated the differing perspectives of key stakeholders – the site managers and government officials groups. Finally, it proposed a framework of property damage control and prevention at visitor attractions. This integrative model was based on the core premise that a systematic and coordinated effort is required to address the complex problem of vandalism at tourist attractions.

PRESENTATION & PUBLICATION NOTES

This thesis is formatted according to the official James Cook University thesis guidelines for a Doctorate of Philosophy (PhD).

A part of Chapter One has been presented at the inaugural International Conference of Tourism and Hospitality Research in Singapore on 10th July 2012.

Pearce, P. L., Bhati, A. & Lee, C. H. (2012) Cutting edge: new directions to tourism research. In: Proceedings of the *Annual International Conference on Tourism and Hospitality Research*, pp. 61-65. 9-10 July 2012, Singapore

Aspects of this PhD research were publicly presented at an inter university level, particularly as part of James Cook University's Celebrating Research initiative. More specifically, the presentations were for:

- My Research in 3 Minutes Competition – Postgraduate (Doctoral) Category on 1st September 2011.

Title: ***Stakeholder responses to vandalism at visitor attractions. Is it real?***
The researcher's presentation qualified for an award at the competition.

Sections from Chapters 1and 2 were re-written and submitted for publication as book chapters. The presentations and publications are summarised in a list below.

Bhati, A. (In Progress). Vandalism: A reality of first world tourist behaviour? To be published in First Class Behaviours for a First World Nation. Singapore: Springer (tentative).

Parts of Chapters 3, 4 and 5 were re-written and submitted for publication in tourism journals. The proposed publications are summarised in a list below.

Pearce, P. L. & Bhati, A. (In Progress). An evaluation of vandalism at visitor attractions in Tropical East Asian context. To be published in *Tourism Geographies*.

Bhati, A. & Pearce, P. L. (In Progress). Stakeholder responses to property damage at

attraction sites: an analysis of current and future intervention. To be published in

Asia Pacific Journal of Tourism Research.

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CHAPTER 1

INTRODUCTION – VISITOR ATTRACTIONS, VANDALISM, AND DEFINITIONAL ISSUES

1.1 INTRODUCTION

This thesis considers specific tourist behaviours designated as acts of *tourist vandalism*. The study seeks to understand stakeholder responses to such behaviours. Stakeholders to be considered include the community, managers of tourist facilities, and government agency personnel. Each group of stakeholders has potentially different perspectives and likely responses to deviant behaviours. Component parts of the study consider the responses that aim to reduce or eliminate deviant behaviours. The context of this work is the tropics—specifically the popular tourism destinations of Singapore and Bangkok in South-East Asia.

The contributions of the tourism sector to host communities have expanded from predominantly economic considerations in previous periods to other facets of

development and socio-cultural regeneration in more recent times (Fayos-Sola, Silva, & Jafari, 2012). The inflow of tourists increases consumption of local products and services, and fuels the development of supporting infrastructure, such as tourist attractions, food and beverage outlets, and accommodation and recreation facilities. However, the arrival of tourists can also have negative implications for the host economy and for the environment. A very substantial tourism literature documents this set of concerns (for an extended review, see (Jafari, 1982; Leslie, 2012; Poitras & Getz, 2006; Reisinger, 2013; Singh, Timothy, & Dowling, 2003). Tourists differ as to their value systems. Some have a high regard for local cultures and the physical environment, and want to protect and conserve them. In contrast, others are indifferent to their socio-cultural and bio-physical settings. The destructive behaviours of tourists (whether intentional or not) may have negative impacts on the visited locations (Jafari, 1982; Leslie, 2012; Winston & Esty, 2006). These acts of vandalism are the focus of this research project and will be subsequently defined in detail.

The following sections of this chapter discuss the concept of vandalism, its definitions and manifestations. These defining statements are then followed by a detailed consideration of the motivation for vandalism. Some studies that deal with the prevention of such behaviours are reviewed. At the outset, it can be noted there is little evidence in the existing literature evaluating the effectiveness of these preventive measures in reducing vandalism especially in an Asian context (Nepal & Lu, 2009).

A consideration of the definitions and discussion of vandalism and its manifestation and related contexts and background ideas provides a basis for commenting on the research gaps and developing the aims of the thesis. The thesis consists of a

comparative study of stakeholder responses to vandalism in two popular tropical tourist destinations, Singapore and Bangkok, Thailand. A comparative study of popular tourist destinations in South-East Asia can offer interesting points of contrast and similarities in the stakeholders' perspectives (Pearce, 1996). It can also enable a richer appraisal of the responses to vandalism and their effectiveness.

1.2 A CONTEXT: TOURISM, VANDALISM, AND SUSTAINABILITY

This section provides the context in which this set of studies can be considered. The work sits within the field of tourism, but extends to some key conceptual and research work in social and environmental psychology, design, and sociology. The study focuses on undesirable tourist behaviour that is damaging to the tourism setting. In a broad sense, the thesis emphasises sustainable tourism practices in the Asia-Pacific region and beyond.

1.2.1 Importance of the tourism sector in Singapore and Bangkok

The international tourism industry is one of the largest commercially important fields of human activity in the current global economy. In 2012, the tourism sector generated about 9% of total world gross domestic product (GDP) and accounted for 9% of global employment. The total international tourism receipts were USD 1075 billion in the same year (World Tourism Organization, 2013).

Tourism is identified as a key growth sector in Singapore. Singapore tourism infrastructure is being upgraded to welcome 15 million tourists by 2015 (Magz, 2006; Siriwardana & Meng, 2013). The tourism industry contributed USD 23 billion in tourist receipts in 2012, making it the third largest industry in the island nation (Singapore Tourism Board [STB], 2014). Recent attractions such as the Marina Bay Sands Resort

and Resorts World Sentosa are attracting and targeting tourists with varied interests (Holmes & Barta, 2010; Kaewta & Siyathorn, 2013). New developments in planned terminal 5 at Changi Airport and the 'gem' precinct at the airport will cater to transit travellers of all budgets. Direct long-haul flights from USA, Europe, and Australia via Airbus A380, construction and promotion of a budget airline hub for travel time of four hours or less, the refurbishment of Clarke Quay and Boat Quay and the redevelopment of Sentosa island are all examples of the initiatives to develop tourist infrastructure in Singapore (Anwar & Valadkhani, 2013).

Singapore's ascent up the 'technology ladder' to a knowledge-based service-oriented economy coupled with regional economic development has provided both a comparative advantage in tourism as well as the opportunity to attract regional travellers (Guell, 2008). The developed tourism infrastructure symbolizes and supports the fast-growing affluence within the Asia-Pacific region. The island nation has witnessed a surge in regional tourism in recent years (Manu, 2010). Travellers from India, China, Indonesia, Malaysia and other parts of ASEAN account for 65% of current tourist flow (Singapore Tourism Board, 2013). These tourists arrive in Singapore to visit places of interest varying from cultural heritage sites to night-time entertainment (Hall, 2005; Pike, 2008). Given the significance of tourism to the Singapore economy and the nature of service industry wherein the customer is a *co-producer*, it is critical to grow the tourist sector by managing tourist behaviour together with the tourist infrastructure (Mekhail, Elina, & Aino, 2013; Min, 2013).

The growth in modern tourism in Thailand can be traced back to the 1960s when American troops in Indochina were sent to Thailand for rest and recreation. The Thai

tourism sector has experienced remarkable growth in international tourists from 5 million

tourists in 1990 to 15 million visitors in 2010. Thailand attracted 21 million tourists in

2012, adding USD 31 billion to its GDP (Tourism Authority of Thailand, 2013; Tourism

Authority of Thailand News Room, 2011). Tourism is the single largest foreign exchange

earning sector in Thailand. The success of Thailand's tourism can be attributed to natural

resources, a welcoming host community, strategic location, easy accessibility, and

marketing strategies adopted to promote the country to the international market (Asian

News Monitor, 2013; McDowall & Wang, 2009).

Bangkok is the hub of tourism in Thailand. The tropical setting, rich history,

unique culture, and high standards of hospitality in Thailand, specifically in and around

Bangkok, have attracted tourists for several decades (Nuttavuthisit, 2007). However, the

unchecked and ill-planned growth of mass tourism in Bangkok has had a negative impact

on international tourism development. Shortage of trained service personnel in the

tourism industry, poor tourist and civic infrastructure, increasing pollution, poor waste

management, environment degradation, and damage to tourist sites are a serious threat to

the sustainability of tourism sector in Thailand (Komain, Aree, Thongphon Promsaka Na,

Chidchanok, & Patarapong, 2013; Siripen, Noel, & Lisa, 2012).

Thus, tourism not only represents a major economic activity and generator of

income and employment, but also influences social development through its impact on

employment creation, income redistribution, and poverty (Truong, Hall, & Garry, 2014).

The challenge within the tourism industry is to operate a profitable global business that

benefits multiple stakeholders and assists people in developing countries to preserve their

cultural heritage while having the least human impact on the environment (Mayer, 2014;

Timur & Getz, 2008b). Tourism has enormous potential to create positive change provided the business decisions that drive the sector take into account not only economic but also environmental and socio-cultural considerations. Thus, upgrading tourist infrastructure, managing tourist behaviour, adopting sustainable tourism practices, and considering stakeholder interest in policy formulation are critical to Singapore and Bangkok's success in managing the tourism industry in the future (Buckley, R., 2010; Jenkins & Schröd r, 2013).

Since vandalism is an aspect of tourist behaviour that could impede development, careful analysis of the phenomenon is essential to achieve sustainable practices. The study of tourist vandalism is the focus of this research work. The following section provides an introduction to the context in which tourist vandalism will be studied.

1.2.1.1 Tourism and visitor attraction

The term 'tourist attraction' is, arguably, a misleading one, as most attractions are visited by both locals and tourists. The definition of a tourist, requiring them to travel outside their normal environment, therefore supports a case for attractions to be regarded as 'visitor attractions' rather than tourist attractions.

Visitor attractions are recreational sites that are becoming increasingly popular as an educational activity. Such sites are visited by both day, and longer-stay, overnight visitors. Visitor attractions are shared by the visitors and the local community. The objective is to generate memorable emotional benefits for the visitors and encourage them to revisit and to make recommendations through positive word of mouth. (Petrick, 2004; Phillips, Wolfe, Hodur, & Leistritz, 2013). Attractions are individual sites, with

easily identifiable surroundings, marked in a geographical area based on a key feature attracting visitors with specific activity needs.

The definition by Pearce (1991), 'an attraction is a named site with a specific human or natural feature which is the focus of visitor and management attraction' (p. 46), highlights the focus on the needs and motivations of the visitor and the emphasis on operational and management practices. Similarly, Swarbrooke (2002) and others support the need for management of attractions and the importance of the visitor experience (Fyall, 2008; Pearce & Benckendorff, 2006; Zahra, Mehrdad, & Iman, 2011). Several tourism researchers agree that tourist attractions are an important element of the tourism system. Much of the core tourism literature argues that the available attractions are a major factor that draw tourists and shape the nature of development of any destination (Goeldner & Ritchie, 2008; Weaver & Lawton, 2011).

There are two main classifications of attractions. The first classification is based on the intrinsic nature of the attraction, such as natural or man-made. A second way to classify attractions is according to the tourists' perception of the attraction (Botti, Peypoch, & Solonandrasana, 2008). Leiper (1990) argued that not all attractions are of equal importance to tourists and proposed a hierarchical classification of primary, secondary, and tertiary attractions. Primary attractions are the main reason for taking a leisure tip. The primary attractions present the vital resource for a preferred visitor activity. In contrast, secondary and tertiary attractions are peripheral places of interest that may not have any link to the primary attraction. However, they add to the attractiveness of the primary attraction by providing additional reasons to visit and are dependent on primary attractions.

Peypoch and Solonandrasana (2007) proposed another classification system built on a 'letter' system identifying attraction categories. The D-attractions are based on the 'discovery' element. These maintain visitor attention for a brief period and result in short duration visitor satisfaction. In contrast, the E-attractions provide a lasting experience to visitors, thus encourages them to spend more time in exploring the elements of the attractions, resulting in a longer visitor satisfaction period.

Yet another approach to classifying attractions is by pricing policy. The policy can vary from free access or it can be an admission charge or yet again the policy may be a combination of free access to some areas and a fee for other areas. Such pricing policy is guided by management objectives, which may range from revenue for profit generation to basic funds for conservation of the attraction. The ownership category (public, private, or voluntary ownership) also affects the management objectives and operational policies, including the pricing. Garrod argued that different approaches to management issues, such as pricing, visitor access, interpretation, and marketing are seen across the ownership categories (as cited in (Fyall, 2008). Further differences in attraction management can be noted in terms of revenue-generation strategies, use of technology for management purposes, operations and management practices, and linked or extended product development (Bryman, 2004). Changes in funding structures often influence the management practices of attraction managers. Similarly, changes in access to capital via financial institutions and access to public finance influence decisions in the development of, and reinvestment in, the visitor attraction.

Kotler (2013) defined three layers of a product with the core being the (emotional) centre. Next there is the tangible product, and then there is an augmented

product as the outermost layer. The approach is applicable to the visitor attraction experience. The core comprises the real benefits sought by the visitor. The tangible product level conveys the essence of the visitor experience. It includes the features and other tangible elements that a visitor can be involved in to enjoy the core benefit. This second level of a product design should portray the four realms of visitor experience, namely, entertainment, education, aesthetics, and escapism (Fyall, 2008). The actual product at the augmented level is the final bundle of value-added services. An example from Singapore is helpful to clarify the approach. The animals and the exhibits comprise the core product in a zoo. The organisation and layout of the exhibits, landscaping, shows, and the interactive display/play area form the tangible product. The final augmented product layer consists of the service level of staff, food and beverage options, cleanliness and upkeep of the guest facilities.

The same kind of levels-based approach to attractions is articulated by Gunn (1985) in his model of concentric rings for attractions. In this model, the nuclei, the core of the attraction, is surrounded by the 'inviolate belt', which consist of the contextual elements of an attraction. The zone of closure, comprising the amenities and facilities for visitor use, becomes the outermost layer as in the augmented product model discussed above.

Drawing on the psychology of place, Canter (1983) and Pearce (1988) presented a model in the form of a Venn diagram comprising three overlapping circles, namely, physical attributes of a setting, visitor activities in a setting, and the meaning visitors bring to the setting. In this approach, the success of an attraction in providing positive

visitor experiences is judged by the proportion of overlap between the circles with higher overlap signifying delightful visitor experience.

The preceding discussion on conceptual frameworks related to attractions provides a broad awareness of processes and forces in attraction development and management rather than an exhaustive critical review of the related literature. The review serves to highlight that attraction management is an issue in maximising the appeal of the attraction core. The understanding of attractions is further enhanced with an evaluation of additional concepts, such as authenticity of the visitor experience and the role of interpretation in shaping positive visitor experiences.

1.2.1.2 Role of attractions

At a micro level, attractions work to attract visitors to a geographic area, but on a macro level, they serve as agents of change and sources of economic development, and create an industry of their own. Specific attractions are instrumental in bringing in related businesses to the destination. They also encourage visitors to return to the destination in the future. Thus, attractions are often used as key products in marketing activities and development plans. The use of the Marina Bay Sands' iconic ship-shaped roof swimming pool structure by the Singapore tourism authority to attract visitors as a symbol of Singaporean economic development is a localized example (Henderson, 2010,2012). Both the ability of visitor attractions to respond quickly to visitor needs and wider external factors are crucial to any destination's competitiveness, as evidenced by the roles of the two integrated resorts in Singapore's economic resurgence in 2010 after being hit by the global financial crisis in 2009 (Henderson, 2012).

In considering the role of visitor attractions, it is important to consider both the views of the visitors and the needs of the local community. In conjunction with the strategies to attract and retain visitors, policies to ensure social inclusion, to encourage cultural awareness, and to achieve the educational objectives of the community must be in place. The involvement of multiple stakeholders in the operation and management of attractions may result in conflicting objectives between revenue generation and conservation. Cultural and social issues pertaining to sustainable development can sometimes be the most difficult to quantify and assess (Mayer, 2014; Nelson, Wall, & Butler, 1993). It is important that the stakeholders appreciate the variety of purposes a visitor attraction may have. A collaborative approach to devising a set of policies to encourage successful management of visitor attractions is preferred (Zahra et al., 2011).

It is becoming increasingly recognised that attractions do have a socio-cultural impact on the visited community. The impact is usually negative and is rooted in the way the visitors use the attraction compared to its traditional uses and users. For instance, too many tourists in a temple who see the attraction as a novelty and entertainment rather than a serious part of the community life negatively affect the experience for the local residents.

In Bangkok, Thailand, there are some notable examples of the roles of attractions. For example, the Grand Palace attraction draws visitors to the site and encourages them to visit other attractions and markets in the vicinity. In this context, it can be observed that carefully designed and managed attractions are instrumental in attracting visitors to a destination, meet the needs of local residents, and develop stronger tourism activities within the destination (Balkaran & Maharaj, 2013).

1.2.1.3 Authenticity of visitor attraction and visitor behaviour

The concept of authenticity in tourism was first introduced by Boorstin (Lau, 2010). In his seminal work titled The Image, Boorstin (1961) suggested the concept of simulation in tourism. The view provided a negative perspective on tourism, suggesting that tourists are unable to have authentic experiences due to their alienation or disconnection from the visited environment. The disconnect was a result of contrived 'pseudo-events'. In support, MacCannell echoed that most tourists were exposed to contrived settings that represented the front stage, while the meaningful traditions and way of life were hidden in the backstage (1973). Cohen extended the work by discussing an implied concept of object authenticity in visitor experiences.

In a much-cited study, Wang outlined three types of authenticity in tourism: object authenticity, subjective (symbolic) authenticity, and existential authenticity (Wang, 1999). Tourism objects refer to everything ranging from life processes, activities, and artefacts. The notion of existential authenticity delinks authentic tourist experiences from real tourist objects. The concept is better explained with two versions of existential authenticity, intrapersonal and interpersonal authenticity refers to tourist activities that are engaged by freewill without any dependence on the objects. The different versions of authenticity are not free of criticism. For instance (Reisinger & Steiner, 2006), rejected object authenticity in tourism, while Lau drew attention to implied object authenticity.

Steiner and Reisinger (2006) emphasised the role of existential authenticity in visitor experiences. It should be noted that existential authenticity (experiences of sharing and participating) and object authenticity (seeing and feeling objects) are very closely linked (Lau, 2010). For example, a visitor visiting the Orchard Road precinct in

Singapore shares in a slice of local life by virtue of their presence. Similarly, a visitor taking a boat ride along Chao Phraya River in Bangkok sees (object) and experiences (experiential) the local way of living. Some tourist settings are contrived or staged settings, for example, a replica of Buddha statues in a museum, which may relate to object authenticity only (MacCannell, 1973). Thus sharing and seeing should be regarded on an authenticity continuum. The visitor engages in a process of authentication. Authentication is the process of judging authenticity. Authentication as a process recognises that the label "authentic" is not a fixed property (Fyall, 2008).

Authenticity may have a role in vandalism or property damage at visitor attractions. Absence of an authentic experience may leave a visitor indifferent to the attraction setting and encourage undesirable behaviours. By way of contrast, the example of a visitor in a temple who defaces a statue and steal the defaced head as a souvenir can be linked to object authenticity. Other acts of vandalism, such as carving on trees, littering in natural settings such as national parks, may provide an existential authentic experience to visitors. Some of these inconsiderate, and seemingly illogical visitor behaviours can be explained by subjective authenticity. In summary, vandalism may result in a loss of tourism elements that provide object authentic, subjective authenticity, and existential authenticity to future visitor streams (Pearce, 2012).

The illustrations in the preceding section link authenticity to visitor behaviours. A discourse on authentic experiences is incomplete without a discussion of the concept of mindfulness. Increased levels of mindfulness can enhance the authenticity of visitor experiences. Mindfulness could also be instrumental in guiding visitor behaviour when

they are visiting an attraction. The next section discusses the role of mindfulness in affecting visitor behaviour at attractions.

1.2.1.4 Interpretation, mindfulness, and visitor behaviour at the Attractions

Interpretation involves the various ways in which attraction management communicates with the visitors (Moscardo & Ballantyne, 2008; Moscardo, Ballantyne, & Hughes, 2007). It includes guided tours, audio-video presentations, signs, printed materials, information centres, interactive exhibits, and all forms of communication other than the attraction itself. The approach to interpretation can take two forms: visitors as the centre of the approach or management as the central focus. Harris (2005) concluded that visitor-oriented approaches are more effective in communication, as the emphasis is on people's understanding of the environment (physical setting) via communication, significance of the place, and understanding of the environmental considerations as the main themes. In contrast, management-centred interpretation concentrates on specific sites and focuses on protection, expected behaviours, and education, thus placing the visitors as passive receivers.

Effective communication in the form of interpretation in visitor attractions performs two roles: it can enhance positive visitor experience and promote sustainable practices and behaviours (Moscardo & Ballantyne, 2008; Woods & Moscardo, 2003). Interpretation plays an important role in positive experience building by creating several opportunities for the visitor to interact physically and mentally with the elements of the attraction (Moscardo & Pearce, 1986). The use of interpretive displays, audio-visual presentations, and other forms of interactive and storytelling mechanisms contribute

positively to visitor satisfaction levels by helping visitors learn new knowledge and perspectives (Benckendorff, Moscardo, & Murphy, 2005; Moscardo, 2009).

The second role of interpretation that builds on visitors' positive experiences is to encourage visitors to be receptive of management messages. Often these messages encourage visitors to exhibit desired behaviours. For example, the messages outline safe and unsafe actions to minimise injury as well as property damage and negative impacts on the attraction. The interpretive messages are often directed towards communicating the broader conservation, environment protection, and sustainability actions, some of which reach beyond the attraction as a take-home message. On other occasions, the messages simply encourage visitors to support the sustainability practices of the attraction, such as not littering and not feeding animals or touching exhibits.

The effectiveness of interpretation is rooted in its design quality and implementation. The mindfulness theory explains how visitors respond to attraction management's messages and the link to desired behaviours (Moscardo, 2009; Moscardo & Pearce, 1986). Provision of facilities and amenities for the visitors, proving personal relevance of the issue being communicated, use of different media and activities to deliver the message, allowing visitors to control their experience, interactivity, and offering different perspectives are all helpful in enhancing the mindfulness of the visitors (Pearce, 2005a).

1.2.1.5 Future trends and challenges in attraction management and development

The process of attraction development is referred to differently in different research fields. It is referred to as 'innovation' in economics and 'new product development' in marketing and 'design' in engineering. The trend is to create all-

inclusive, multi-faceted attractions capable of year-round operations appealing to different markets and being financially independent (Benckendorff, 2008; Calver & Page, 2013; Fyall, 2008).

The role of technology in the development and transformation of future attractions is twofold. On the one hand, technology may offer a new form of visitor experience, but it may also enhance management of the attraction through improvements in human resources and visitor control. The shift towards personalised interaction and better treatment of visitors is another key driver in attraction development resulting in a high-tech, high-touch approach to attractions (Balkaran & Maharaj, 2013; Benckendorff et al., 2005).

A substantial challenge in visitor attraction research is the lack of available data or empirical studies. Much of the available data have been collected using informal survey feedback or exists only in consultancy reports, raising questions with regard to the reliability and validity of the findings (Fyall & Leask, 2006). An immediate implication for this thesis and the set of studies it contains is to pursue topics in tourist attraction built on high-quality and tailored research methods to generate quality data.

The effects of intervention strategies on attractions vary. For instance, the sensitivity of visitor attraction to degradation, the severity of the impact of visitor behaviour, the nature of the physical setting of the visitor attraction, and the feasibility of target hardening depend on the nature and composition of the visitor attraction. Nature-based attractions are dependent on the geographical setting and are extremely sensitive to degradation. Similarly, cultural and heritage attractions can suffer from irreversible negative impacts of visitor behaviour. Attractions with large physical settings may find it

difficult to exercise territoriality or provide surveillance. Newly built attractions are 'hardened' targets with better environment design and use of technology. Thus, formulating a unified intervention strategy to address vandalism requires extensive research and analysis.

1.2.2 Vandalism: Deviant tourist behaviour

Studies on vandalism against physical objects have been conducted mostly in the broad framework of criminology, employing concepts and theories from social psychology and sociology, particularly in the 1970s and 1980s (Ballatore, 2014). A simple Venn diagram in Figure 1.1 is useful in explaining the domain of human aggression and other labels related to human behaviour including vandalism. While explaining the general aggression model (GAM), Bushman and Anderson argue that 'human aggression is any behaviour directed towards another member of a community or their property that is carried out with the intent to cause harm or damage' (2002, p. 28). It is not necessary for all acts of aggression to be criminal in nature. Thus, a sub-classification of human aggression as either anti-social behaviour or criminal behaviour is helpful in differentiating the two overlapping concepts. Further clarity is provided by identifying vandalism as principally a subset of anti-social behaviour, which does have an overlap with criminal behaviour. All three themed topics are part of a broader concept of human aggression.
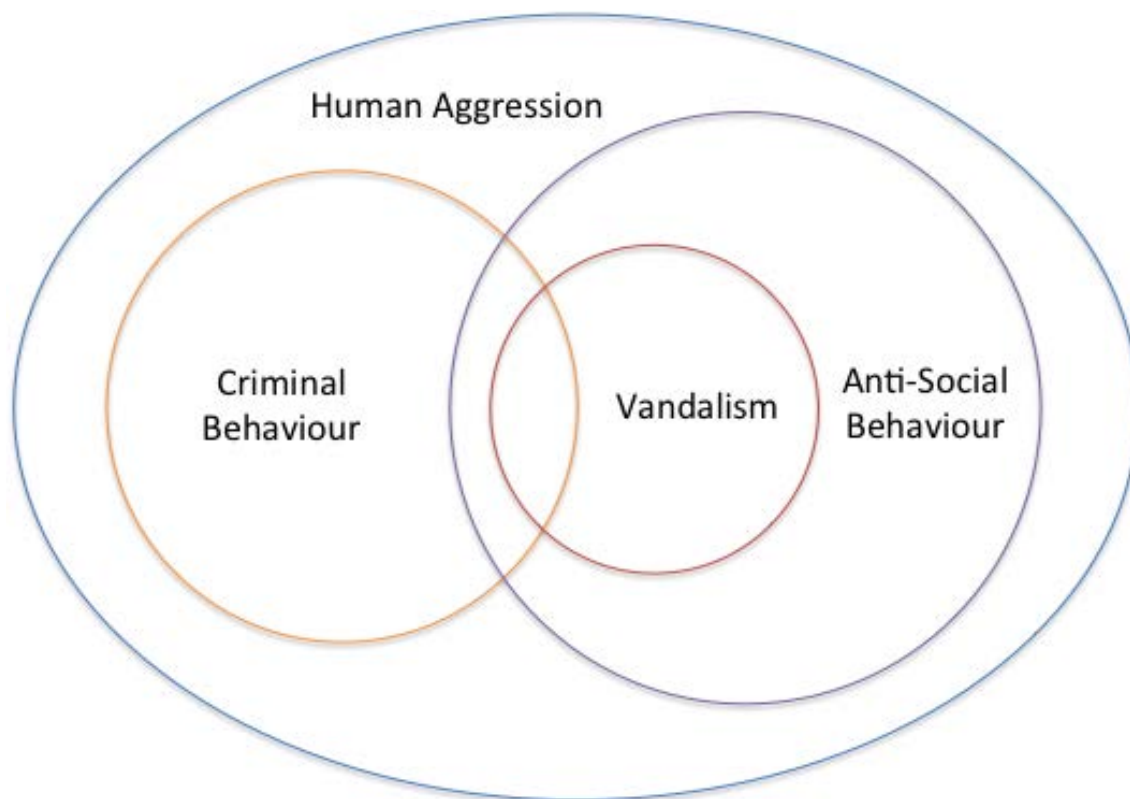
Figure 1.1. Typology of human aggression and vandalism

According to Millie (2008), behaviours regarded as 'different' or outside the norm can be labelled as anti-social. He stressed that anti-social behaviour should not be confused with criminal behaviour, as harm and offence are two key constituents for criminal behaviour, which is not the case for anti-social behaviour. However, there is a definite overlap between the two concepts as exhibited in the Figure 1.1. Moreover, anti-social behaviour is context-specific. What is considered anti-social, or what is tolerated or even celebrated, is dependent on norms of acceptability for that place and situation.

The preceding classification guides us towards a better understanding of vandalism as a behaviour, which is considered as being against the interests of the community, although it may not be criminal in nature. This wilful (or unintentional) defacement of others' property to fulfil one's immediate goals is defined as vandalism by

the Oxford dictionary, ("Oxford Advanced Learner's Dictionary of Current English," 2000, p. 1494). The work of van Vliet (1992) supports this approach by defining vandalism as 'wilful damage to or destruction of property owned by others' (p. 32). Thus, acts that destroy damage or deface property are classified as vandalism.

Some of these acts may fall under criminal jurisdiction. For example, a football player's spitting on the pitch during a match may be an act to clear his throat, while the same behaviour in a public space, such as Orchard Road precinct in Singapore or Siam Paragon shopping mall in Bangkok, may be classified as anti-social behaviour or an act of vandalism.

Many researchers and practitioners have used adaptations of Stanley Cohen's (1973) typology of motives as a framework for understanding vandalism. Cohen's broad and influential classification of types of vandalism, based on the offender's purpose included: acquisitive, tactical, ideological, vindictive, play or malicious. However, incorporating these motivational attributions into the definition of vandalism has been problematic. For instance, there has been difficulty in attributing the damage to statues in temples of Angkor Wat in Cambodia to natural wear and tear (weathering effect) or to deliberate acts of tourists to satisfy hedonic instincts. Similarly, damage to property could be accidental and not intentional; thus, the behaviour lies outside the motivational framework proposed by Cohen. Over the last two decades, vandalism has been discussed in the framework of crime prevention through environment design (CPTED), applying environment design concepts to discourage deviant behaviour (Ballatore, 2014; Cozens, P., 2008). The CPTED approach is discussed in detail in later sections of this thesis.

There is an argument that a general definition of vandalism is of limited use to researchers and this study. Barker and Bridgeman (1994, p. 2) observed, 'To devise an effective preventive strategy, a precise definition of the particular problem is essential. This should take into account the circumstances in which the behaviour occurs, consider the range of possible motivations and recognise that the multi-faceted nature of vandalism may require different measures to address different aspects of the problem.' Thus, it is important to arrive at a tailored definition of vandalism for any particular research study, and this definition may or may not incorporate identification of root causes and implicit solutions.

In order to develop a tailored definition, it is useful to note that a number of typologies of vandalism have been identified in the current literature. Table 1.1 reports the vandalism types. Each type is supported by a brief explanation and an example is given in brackets.

Table 1.1 *Typologies of vandalism*

Author	Types of vandalism	Explanation (examples)
Martin (1961)	Predatory vandalism	For material gain (stealing artefacts)
	Vindictive vandalism	Express anger or retaliation (graffiti, carving on trees)
	Wanton vandalism	Without reason during play or malicious destruction (breaking signboards)
Weinmayr (1969)	Vandalism of overuse	Wear and tear due to overuse (damaged painting due to touch)
	Conflict vandalism	Inconsiderate towards the environment (broken fence)
	Curiosity vandalism	Inquisitive to see the result of an action (damaged street lights, damaged corals)
	Leverage vandalism	Destruction due to force (force open a restroom cistern)
	Deleterious vandalism	Destruction fixed property (bench in a park)
	Irresistible temptation vandalism	Urge to express (graffiti)
	No-other-way-to-do-it vandalism	Lack of infrastructure (litter in absence of bins)
Cohen (1974)	Acquisitive vandalism	For material gain (stealing artefacts)
	Tactical vandalism	Use vandalism to accomplish other goals
	Ideological vandalism	Accomplish political, religious goals (graffiti, vandalising statues)
	Vindictive vandalism	Express rebellion and revenge (directed property damage)
	Play vandalism	Fun in destruction (broken signboards, public telephones)
	Malicious vandalism	Express frustration (damaging public property)
Thaw (1997)	Hostility-directed acts	Express revenge, acquisition, or frustration (defacing statues)
	Acts of thoughtlessness	Little regard for the consequence (touching artefacts, corals)
	Acts of carelessness	Inconsiderate to the environment (walking through plants, littering)
Zeisel (1977)	Malicious vandalism	Express frustration (damage to public property)
	Misnamed vandalism	Poor environment design (location of litter bins)
	Non-malicious vandalism	Inconsiderate to the environment (playing, littering, carving on trees/ tables)
	Hidden maintenance damage	Consequences of poor design or planning (touching artefacts, disturbing corals)
Coffield (1991)	Financial gain	For material gain (stealing artefacts, coins from telephones)
	Peer group pressure	To gain acceptance (graffiti, breakage of signboards)
	Pleasure	Fun in destruction (defacing statues)
	Excitement	Express frustration (damaging public property)

The vandalism definitional framework in this thesis builds on the previous

descriptions of wanton vandalism (Martin 1961), vandalism of overuse, leverage

vandalism, and deleterious vandalism (Weinmayr,1969), play vandalism and malicious

vandalism (Cohen, 1974), acts of carelessness (Thaw, 1997), misnames vandalism and

hidden maintenance vandalism (Zeisel, 1977), and peer group pressure (Coffield, 1991).

Highlights of these approaches include aggressive behaviour, anti-social behaviour, acts

of property damage and loss to society. The conceptual approach built on these ideas

constituted the following definition that is the centrepiece of this work:

> *vandalism is as an act of human aggression that is anti-social, which while not*
>
> *necessarily invoking criminal charges, does result in damage to or loss of*
>
> *property.*

1.2.2.1 Costs of vandalism

Vandalism results in property damage and destruction. These outcomes range

from irreversible (breaking and defacing) to reversible (litter and misuse of facilities),

immediate impact (graffiti) to delayed impact (environment degradation) and easy to

record (carving on surfaces) to difficult to record (damage to marine/natural

environment). Vandalism has both explicit and implicit costs. While most of the above

outcomes will result in explicit cost, the loss of cultural heritage and social values are

definite implicit costs. The following section describes the monetary, socio-cultural,

economic, and environmental costs of vandalism.

1.2.2.1.1 Monetary cost

Assessing the full economic costs of vandalism is difficult. Though it is possible

to assess the nature and extent of property damage, calculating the damage explicitly

derived from vandalism is not so straightforward. Property damage could be the result of

several factors other than vandalism, such as wear and tear and depreciative damage

(Goldstein, 1996). Several studies in school settings have estimated that a high proportion

of budget allocations are allocated to repair and restoration of damaged property

(Almond, Duggan, Shine, & Canter, 2005; Fritzon, Canter, & Wilton, 2001; Tygart,

1988). In the absence of a similar study in tourism, the discussion focuses on the explicit

costs of labour and material costs, costs of supervision, and administrative cost of repair

process. Destruction of irreplaceable property, loss of aesthetic value during repair, and

lost income during downtime are some of the hidden costs of property damage.

1.2.2.1.2 Socio-cultural cost

Several studies have directed attention to the socio-cultural issues surrounding

vandalism. These include the stress-enhancing effect of vandalism (LaGrange & Ferraro,

1992), increased incidence of incivility (Miethe & Meier, 1994), a sense of disorder and

decline due to litter and damage to public facilities (Skogan, 2011), and lower inhibition

levels of visitors (Christensen & Clark, 1983) serving as an encouragement for deviant

behaviour. Similarly, the cultural cost in the form of irreplaceable loss of culturally

valuable property, loss of future assets, and reduced visitor numbers are socio-cultural

consequences for an affected community.

1.2.2.1.3 Economic cost

The economic well-being of the tourism sector is dependent on attractions of

tourist value, such as natural scenery, historical and cultural sites in Bangkok

(Nuttavuthisit, 2007), and high levels of tourism infrastructure, such as heritage buildings

and museums in Singapore (Holmes & Barta, 2010). The damage to attractions and

tourism infrastructure will, in time, have a negative impact on tourist arrivals, which in

turn will reduce the positive economic benefits of the sector. These assertions are logical,

but the absence of clear data makes it difficult to argue the precise level of impact of

tourist-driven vandalism. Drawing on the discussion, a key goal of the present set of studies will be to at least access stakeholders' views of the significnace of tourist attraction damage.

1.2.2.1.4 Environment cost

Junking, which is defined as the stripping of physical and cultural resources for resale, the cost of removing litter, the burden of replacing chopped or mutilated trees, as well as the expense of replanting destroyed gardens and the imposition of treating water pollution are a few of the environmental costs associated with vandalism. However, these costs are minor when compared to the the ecological impact of, damage to, and abuse of the environment (Devlin & Brown, 2003). On a larger scale of consideration, the cumulative effect of inconsiderate acts of vandalism, somehow justified as economic growth, is felt in the form of global warming, change in climate, and loss of natural flora and fauna (Buckley, R., 2010; Jenkins & Schröd r, 2013; Mayer, 2014). Vandalism is a costly phenomenon in environmental, economic, and cultural terms. The total impact of small, but multiple acts of property damage on tourist attractions has far-reaching consequences.

The following section specifically applies the concept of vandalism to tourism. A tourist visiting a destination, such as Singapore or Bangkok, is motivated by self-interest in the short term. This self-interest may compromise the interests of other stakeholders who have a continuing stake in the economy. Tourist vandalism manifests itself in several forms. It includes damage to physical property as well as undesired behaviour, such as drinking and driving or being involved in fights and brawls. Since tourist vandalism of

this type is widely seen as undesirable, the community is forced to bear higher costs in the form of additional police patrols and site maintenance (Thirumaran, 2013).

From an economic perspective, Guell (2008) explained that every economic choice is a result of the marginal analysis of economic cost and benefit. Applying the economic theory of social benefit and social cost associated with an activity such as tourist vandalism, the economic benefits are recognised in the form of tourist revenue and foreign exchange earnings, thus fuelling higher levels of economic growth. On the other hand, social costs include direct and indirect impacts of the activity on the environment (Lewin, 1996). Other than the explicit cost incurred to produce 'tourist' goods and services, the economy (society) also bears a negative externality in the form of undesired tourist behaviour and action, thus reducing social well-being.

The preceding section introduces vandalism and defines it in the context of this thesis, and has been followed by a discussion on the costs/negative effects of vandalism. The line of enquiry emphasises the need for a richer and deeper understanding of vandalism's role/effect on sustainable tourism development. Sustainable tourism (ST) is a major focus in the debate on environmentally integrated tourism development, but existing research shows that sustainability is a complex concept, and one that requires critical and comprehensive analysis (Bramwell & Lane, 2009; Fennell, 2007; Nepal & Lu, 2009). This research project considers sustainability from attraction management and stakeholder perspectives. The next section discusses the sustainable tourism phenomenon in detail.

1.2.3 Sustainable tourism: Role of visitor attraction and multiple

stakeholders

Tourism is one of the largest and most influential industries in the world and is predicted to lead the way in promoting triple bottom-line business principles that have positive benefits for the environment, societies, and cultures (Bramwell & Lane, 2011; Buckley, 2012; Tip, 2009; Weaver, 2011). At the same time, tourism development is a significant cause of several undesirable social, cultural, and environmental disturbances (Timur & Getz, 2008b). Tourism is recognised as a resource-intensive industry; it needs, therefore, to be accountable in terms of sustainability on both local and global scales. Integrating sustainability into this giant industry can improve the long-term viability for businesses small and large, and provide a model for other large industries to make similar positive changes (Tip, 2009). 'The World Tourism Organisation [now the United Nations World Tourism Organization] defines sustainable tourism development as meeting the needs of present tourists and host regions while protecting and enhancing opportunities for the future' (Inskeep, 1998, p. 4).

1.2.3.1 Role of visitor attractions

Tourism destinations comprise visitor attraction that are classified as 'common pool resources' (CPRs) as these resources (natural and built elements) are consumed by the locals and tourists alike (Briassoulis, 2002). Jafari (1974) referred to these resources as 'background tourism elements' (BTEs). Typically, the total visitor attraction is heterogeneous, comprising formal and informal elements with which the visitors (locals and tourists) interact simultaneously. This visitor interaction is mostly spontaneous and unplanned. The visitors consume the elements within the attraction, such as exhibits and

facilities as well as external infrastructure in transportation and markets. This simultaneous and uncontrolled use of these resources can lead to overuse and abuse. Building on the 'tragedy of commons' concept from economics, Healy (1994) suggests that uncontrolled use of resources leads to lack of incentive in maintaining or improving these resources. Exploitation of these resources leads to the erosion of attractiveness of visitor attraction; thus, a key sustainable tourism development criterion is not fulfilled.

Different interests, aspirations, motivation, expectations, and levels of engagement of visitors at visitor attractions result in varying perceptions about cost and benefits of visitor behaviour. The cultural differences and the lack of uniform social norms and practices may result in poor appreciation of the impacts of property damage at visitor attractions on the local community and the destination. Visitors damage cultural or natural values when they do not comply with norms of 'proper' use. Visitors taking behavioural cues from the environment may result in the 'free-rider' problem in absence of adequate prompts (Briassoulis, 2002; Buckley, 2012). The lack of rules or inadequate enforcement, may result in an incomplete understanding of expected behaviour and serve to encourage deviant behaviour. Furthermore, lower levels of engagement with the elements of visitor attractions mirrors often a lack of appreciation of the long-term real consequences of property damage.

The current literature emphasises that the role of management is to protect and preserve these attractions for a longer time (Benckendorff, 2008, 2009; Buckley, 2012; Harris, Williams, & Griffin, 2012). One of the key roles of management is to devise and execute policies that protect and grow the appeal of their attractions. These strategies

range from the design of the attraction, the operations, routine and repair and maintenance, and management of visitor behaviour.

Individual attractions may be sustainable as a separate entity. Commercial viability of visitor attraction is one measure of sustainability as a unit (Henderson, 2010). Nevertheless, the economic cost, economic benefits, positive or negative socio-cultural and environmental impact must all be acknowledged in the visitor attraction sustainability discussion.

There is a need to move away from the concept of sustainable tourism as a focus on the continuity of tourism instead to the contributions of tourism to overall sustainable outcomes (Moscardo, 2007). Wall (as cited inMoscardo, 2007, p. 6) argues the real question about sustainable tourism as 'whether and in what form might tourism contribute to sustainable development?' The same analogy is applicable to visitor attractions. Drawing on the parallels from Holmefjord (2000), visitor attractions as a combined entity are able to contribute to the competitiveness and sustainable development of a tourist destination in the form of product synergy, market synergy, marketing synergy, and conservation synergies. The drawing power of the visitor attraction to attract visitors, tourism revenue, and capital expenditure in infrastructural development generates product synergies for sustainable development. The visitor attraction contributes to development of facilities shared by the visitors and the community. The above discussion highlights the need for attention to sustainable practices at visitor attractions. At the same time, customisation of these initiatives is needed to suit the nature of the visitor attraction.

1.2.3.2 Multiple stakeholder perspective

The concept of 'stakeholders' is becoming important in tourism (Gossling, Hall & weaver, 2009; Hall, 2007). It is argued that the stakeholder concept gained prominence with the book titled "Strategic Management: A Stakeholder Approach" (Waligo, Clarke and Hawkins, 2013). A survey of the literature revealed that many researchers agree that stakeholders are a significant component of an organisation's environment (Freeman, 1984; Fyall & Garrod, 2005; Hall, 2007; Jawahar & Mclaughlin, 2001). Murphy (1985), in his seminal work, "Tourism: A Community Approach", emphasised the importance of creating links with stakeholders and developing mutually beneficial partnerships (Bramwell & Sharman; Hall, 2007).

Fuller consideration of the current tourism literature revealed that despite the rising interest in stakeholders, limited attention is given to effectiveness stakeholder involvement in empirical tourism research (Dodds, 2007; Waligo, Clarke and Hawkins, 2013). It has been argued that decision makers in the tourism do not consider stakeholder perspectives (Byrd, Bosley & Dronberger). The purpose of this research project is to give attention to the opportunities and barriers related to stakeholder involvement in attraction management. In particular, this thesis offers a structured approach to analyse diverse stakeholder perspective on vandalism and to implement complex process of multi-stakeholder involvement in visitor attraction management to curb on0site property damage.

The management system at the visitor attraction is influenced by the diverse nature of ownership of the visitor attraction ranging from public (state), private, and communal (voluntary). The objectives and priorities of the management are guided by the

nature of ownership. On the external front, the resource utilization patterns and attraction valuation criteria differ depending on whether the visitor is from the local community or a tourist. These variations result in developing a coordinated approach to management principles.

The above discussion points at several factors contributing to the understanding of sustainable tourism development for visitor attractions, namely, the diverse nature and composition of these facilities, heterogeneous usage, stakeholder involvement in decision making and planning, the role of the tourism sector in sustainable development, and contextual factors.

For a sustainable tourism development approach to be workable, partners from the tourism industry, government, and community, in other words, groups and individuals with divergent interests, goals, values, and perspectives, need to be drawn into the process of tourism planning and development (Hetherington, Inskeep, & McIntyre, 1993; Weaver, 2006). This creates tension, as the concept of sustainability is defined, interpreted, and implemented differently by different individuals, stakeholders, and social groups. Evidence in the current literature identifies a reciprocal mistrust and a lack of understanding of each other's interests and needs among the diverse stakeholders in tourism; these tensions in turn complicate consensus building in sustainable tourism development (Paskaleva-Shapira, 2007).

It is noteworthy that the stakeholder definition does not include the responses of the tourist/visitor. The purpose of this research project is to study and possibly help reduce deviant visitor behaviours labelled as vandalism. The immediate research focus is on managers and the community as key agents in the total management of visitor (tourist)

vandalism. Visitors who are important stakeholders under normal circumstances are excluded from scrutiny. The study of visitors as stakeholder provides a different and future research opportunity. Visitor responses to vandalism and their role in visitor vandalism are another research agenda, and may be difficult to conduct if the behaviour is illegal or likely to be sanctioned by others. The final chapter of this thesis will reconsider this issue based on actual studies completed about other stakeholders.

Edwards and Steins (1998) conclude that the rate and intensity of exploitation, or in this case property damage, is a function of management practices at tourist sites. The absence of long-term vision, planning, and decision making leads to mismanagement and abuse of resources. Management philosophy is usually guided by the priorities of the ownership regimes. A private owner may overlook some property damage by visitors if profits are being made while an ineffective public regime may demonstrate lax management in form of inadequate rules or enforcement to check property damage. Evidence from the current literature recommend community-based approaches to tourism that involve the local stakeholders in decision making as the key component of sustainable development (Hall, 2005; Moscardo, 2008). These local participants should have sufficient understanding of tourism and their role in decision making to ensure effective involvement in decision making.

The argument in this section is that obvious and considerable damage reduces the attractiveness of destinations and their perceived value to tourists. In time, visible vandalism could shrink tourist flows into destinations such as Bangkok and Singapore. The further consequences of vandalism could include compromising the social welfare of major stakeholders such as the community, industry, and the government. The above

discussion on tourism development and sustainable tourism intends to reveal the role of visitor attraction as a tool to support sustainable development of a destination (Poitras & Getz, 2006). Emphasis is now placed on collaborative arrangements, stakeholder analysis, and holistic interpretations to reduce the tensions created by the interactions between the tourism industry, visitors, the environment, and the communities. Sustainable tourism focuses on minimising environmental and cultural impacts, optimising visitor satisfaction, and maximising long-term economic growth for the region where tourism is developed (Alonso & Liu, 2012; Buckley, 2012; Clarke & Waligo, 2013; Mayer, 2014; Nepal & Lu, 2009).

The focus of the discussion has been to review the factors influencing the sustainability of visitor attraction as well as the contribution of visitor attraction to sustainability of the destination. The interdependence of several factors in development of visitor attraction is closely linked with the synergetic contribution of visitor attractions to sustainable tourism development. The present set of studies seeks to make a contribution to these sustainability considerations, principally through understanding context and stakeholders views.

1.3 SIGNIFICANCE OF THIS RESEARCH

Firstly, studying tourism topics has been frequently conducted in the temperate climate of the world. This study pursues a tropical tourism agenda as this offers a new context for fresh themes (Pearce, 2008). This study was carried out within the tropical Asian context within James Cook University's strategic intent focused on the tropical agenda. The research project is anchored in the *Industries and Economies in the Tropics* strategic theme (James Cook University, 2014).

Secondly, 'the notion of tourist vandalism is clearly understood as a problem but there is not a common definition to describe the phenomenon' (Goldstein, 2004). The acts and behaviours acceptable in a community may vary considerably across cultures. This difference is because of the cultural values, diverse government systems, and socio-economic considerations across national boundaries and communities. Such differences constitute a research gap to study deviant tourist behaviour, and visitor attractions and attraction stakeholder responses to such behaviours represent a core beginning to document baseline and key perspectives.

Thirdly, the nature and effectiveness of strategies to control property damage at visitor attractions may well offer contrasts across cultural settings and communities. Thus, a comparative study of tropical tourist destination sites should be helpful in providing information on management approaches as well as the effectiveness of these strategies. Potentially a comprehensive analysis and evaluation of intervention strategies could offer a valuable knowledge source for other sites. Next, the study identified and discussed the need to understand diverse perspectives to vandalism and responses of different stakeholders to arrive at a holistic strategy that presents a unified intervention approach to address property damage.

Finally and more broadly, the work in this thesis is in line with the growing interest in academia to 'investigate the preservation of physical, cultural and historical attractions from tourists' impact' (Bhati, Pearce, & Lee, 2012, pp. 63-64). The thesis focuses on features of the physical design of attractions, the attitudes of the stakeholders and the nature of anti-vandalism intervention strategies adopted by the stakeholders. Larger level issues such as cultural difference identified in values, beliefs, behaviours

(verbal and non-verbal) and needs are not explained by the data or the subsequent analysis in this production. This research project focuses on the immediacy of stakeholder attitudes and responses towards vandalism rather than such broad concerns as cultural differences. An additional limitation of cross-cultural studies is that the assessment of a cultural unit for study, a vital issue of such studies, needs to be explored, developed and validated before considering the cultural differences of stakeholders in an international setting (Li, 2014). In summary, the issues raised in the cultural background of stakeholders provide an interesting agenda for future research.

1.4 ORGANISATION OF THE THESIS

The purpose of this thesis is to document stakeholder responses and perspectives towards vandalism, the effectiveness of intervention strategies to prevent tourist vandalism and its impact on sustainable tourism in Singapore and Bangkok.

The work attempts to document the incidence of tourist vandalism and measure stakeholder responses to curb tourist vandalism. The stakeholders to be considered are site managers of visitor attractions, local government officials, and the community hosting tourists. Taken together, the study of these groups should offer a comprehensive perspective. The nature of stakeholder response to vandalism and its effectiveness may not be consistent across countries. Thus, the study employed a comparative approach to present and analyse research findings in two popular South-East Asian tropical tourist destinations.

The study will contribute to an existing gap in the tourism literature by informing alternate explanations and conceptualizations of tourist vandalism especially in a tropical Asian setting. It will expand the boundaries of tourism knowledge in particular to those

involved in managing tourist behaviour and show a comparative analysis of strategies to curb tourist vandalism in a tropical Asian context and the impact on sustaining tourism practices. Figure 1.2 provides an overview of the thesis structure and the chapter outline. The following section describes the chapter structure in the thesis.

The literature review is developed across the first two chapters and documents vandalism and its manifestation in tourism, the severity of tourist vandalism, and considers its impact on sustainable tourism. In these first chapters, the factors serving as motivators for vandalism and the intervention strategies to curb vandalism were reviewed. These strategies vary between stakeholder groups as well as across host communities, thus the proposal presented a case for comparative study in a tropical setting outlining the research methodology.

Chapter two is organised in two parts. The first part extends the considerations of relevant literature to the studies in thus thesis by exploring the influences on deviant behaviour. A consideration of the literature reveals micro-level factors, such as biological, developmental, and psychological, and macro-level factors of social, economic, and environment design. Next, the various explanations about motivation for vandalism are discussed. The final section discusses the intervention strategies in the current literature to control and prevent vandalism at attractions. The second part of chapter two reports the gaps in the literature and research opportunities. Considerations to research paradigms, research perspectives, and research design of the thesis follow next. The final section of the chapter outlines the overall research question and aims of the thesis.

Chapter three functions to 'set the stage' by providing an account of the real and symbolic signs of vandalism and offers evidence of current intervention strategies as seen in the two locations of Singapore and Bangkok. This material helps to compare the sites for vandalism. The physical audit is a descriptive participant observation-based study, which seeks to identify explicit or perceived signs of vandalism. It considers both physical damage to property and where possible provides an account of real-time acts to portray 'as it happens' descriptions, such as littering and physical damage. Evidence of repair and rectification are considered in this part of the work. The audit also records preventive and corrective strategies employed to curb vandalism.

A greater understanding of stakeholder perspectives is continued in chapter four, where the focus is on the communities that host the tourism industry and tourists. An appreciation of explanations and conceptualizations of the tourist vandalism phenomenon as understood by the local community is essential to add further views and potentially review underlying causes and evaluate preventive strategies.

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                              ┌─────────────────────────┐
                              │ Chapter 3 – Foundation  │
                              │ studies:                │
                              │      Physical audit     │
                              │ Introduction            │
                              │ Profile of sites        │
                              │ Data collection based on│
                              │ observations            │
                              │ Result and conclusion   │
                              └─────────────────────────┘
┌──────────────────────┐     ┌─────────────────────────┐     ┌──────────────────────┐
│ Chapter 1 – Introduction:│  │ Chapter 4 – Community   │     │ Chapter 6 – Discussion,│
│ Visitor attractions,    │   │ survey - public responses│    │ Summary and Conclusion │
│ vandalism and definitional│ │ Introduction            │     └──────────────────────┘
│ issues               │     │ Profile of respondent   │
└──────────────────────┘     │ Data collection through │
                              │ large sample survey     │
┌──────────────────────┐     │ Result and conclusion   │
│ Chapter 2 – Concepts:│     └─────────────────────────┘
│ Understanding psychology│   ┌─────────────────────────┐
│ of deviance & managing │    │ Chapter 5 – Views of    │
│ sustainability        │     │ site managers and       │
└──────────────────────┘      │ government officials    │
                              │ concerning property     │
                              │ damage at visitor       │
                              │ attractions             │
                              │ Introduction            │
                              │ Profile of respondent   │
                              │ Data collection through │
                              │ selected interviews     │
                              │ Result and conclusion   │
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Figure 1.2. Thesis structure

The fifth chapter will present data collected from two important stakeholder groups, namely, site managers and local government officials. Both groups are responsible for the selected sites in Singapore and Bangkok. The objective of the chapter is to understand their perspectives on tourist vandalism as well as to understand their views on the severity of the issue and its impact on sustainable tourism. The process of planning and executing counter strategies to curb vandalism and the mechanisms to measure effectiveness of these strategies form an important element of the data collection process. An investigation into site managers' and local government officials' future plans and expectation is incorporated into the work.

The final chapter integrates the stakeholder attitudes and provides points of comparison between the two destinations. Further comparisons between the work conducted and data from global studies of vandalism in tourism are made. It is anticipated that the overview may generate fresh perspectives in the explanations of the vandalism phenomenon, its impact, the need for action, the effectiveness of actions, and the impact on sustainable tourism.

1.5 SUMMARY

This chapter introduced the topic of property damage at visitor attraction labelled as vandalism. It began by introducing the notion of vandalism and its link to visitor behaviour. It then provided a context for the thesis work by discussing the growth and importance of tourism in economic terms in South-East Asia, explaining the concept of vandalism and its manifestations in tourism. The definitional work framing this thesis, particularly how to consider tourist-based vandalism, was also introduced in the chapter. An overview of the structure of this thesis was presented outlining the different chapters

of the research effort and how they interrelate and build joint outcomes. The chapter

concluded with a brief review of the contents of the six chapters comprising this thesis.

CHAPTER 2
CHAPTER 2 – CONCEPTS: UNDERSTANDING PSYCHOLOGY OF DEVIANCE AND MANAGING SUSTAINABILITY

2.1 INTRODUCTION

This chapter begins with a discussion on vandalism in tourism, offers an explanation of theories from the study of vandalism, and includes illustrations of the kinds of behaviour with which we are concerned. An analysis of motivation for vandalism and a brief discussion of short- and long-term intervention strategies for reducing the scope and scale of vandalism in tourist destinations are included. The concern here is with both public and private property, as well as both the natural environment and purpose-built tourist infrastructure, such as tourist sites and public amenities.

Vandalism is neither a recent phenomenon nor a passing, temporary fad. It is a historic and ongoing problem. This is evident from the work of Strang (1999, p. 1) wherein an Egyptian priest from that civilization observed, 'Youth is disintegrating. The youngsters of the land have disrespect for their elders and contempt for authority in every form. Vandalism is rife, and crime of all kinds is rampant among our young people.' The 4,000-year-old quotation suggests that vandalism is an age-old phenomenon. In spite of a long history, there is neither a single definition of vandalism nor a model solution. Society has been bearing the direct and indirect costs of vandalism ranging from financial cost to public and private owners to inconvenience and discomfort. Fear, actual danger to the society and loss of future tourist streams are among the consequences of vandalism (Barker & Bridgeman, 1994). Offler, Thompson, Hirsch, Thomas, and Dawson (2009, p. 3) support the preceding view by maintaining that 'the costs of vandalism should be considered in the physical, psychological, social and economic contexts'.

Popular media and academic literature provide several illustrations of vandalism by tourists. The *New York Times* ("Tourist rips a painting," 1983) reported that a tourist cut a seventeenth-century painting out of its frame and tore it into pieces, demonstrating his disagreement with the commercialisation of art. Every year in summer, the city of New York becomes home to hundreds of graffiti artists from around the world, prompting a view that the city is a 'graffiti Mecca'(Kirkpartick, 1996). These self-proclaimed artists consider New York as the final stop on a 'Graffiti World Tour', thriving on the excitement of damaging property and the risk of being captured. Another example of tourism linked vandalism is at the site of national heritage treasures, such as the Great Wall of China and Angkor Wat temple in Cambodia. Visitors to the world

heritage site of Angkor Wat have used chainsaws and motorcycle brake wires to slice through the rock and hack off statues of gods, demons, and half-animal, half-human figures. These figures once revered by the Angkor civilization are presumably taken as personal souvenirs or 'harvested' to sell the figures for profit (Perlez, 2005). Additionally, souvenir collectors have pilfered bricks and stones out of the Great Wall of China, contributing to the disappearance of roughly half of the estimated 6,000 kilometres of the wall built during the Ming Dynasty (Yardley, 2006). Some doubt must, however, be cast over these broad claims as much of the wall was also recycled by local communities over the centuries, so it is difficult to be precise about the role of tourists and visitors versus local communities in this change process.

Other insensitive actions of visitors are damaging the natural environment. According to American Forests (2001, p. 11), 'chainsaw wielding vandals attacked one of the world's tallest sugar pines, stripping away a band of bark and several layers of the base of this 265-foot tall, 400 years old tree'. Several Redwood trees have been attacked by vandals and left with huge chainsaw gashes threatening their long-term survival. Weaver (2001) discussed damage to coral and reef diversity attributed to mass tourism and scuba-diving expeditions around the Great Barrier Reef. As another example, the 'Eye of the Needle', a sandstone arch on the Upper Missouri River in Montana formed by thousands of years of weathering—the gradual breakdown and erosion of rocks—fell to vandals' excessive behaviours seeking hedonistic pleasures (Gordon, 1997).

The instances already cited illustrate unsolicited tourist behaviours. The work of Weaver (2001, p. 104) regards tourism in general as a 'Trojan horse capable of undermining the environmental, economic, and socio-cultural integrity of destinations'.

Current literature supports the above statement, arguing that such impacts contribute to tourism being unsustainable (Nelson et al., 1993; Pearce & Butler, 1993; Toh, 2001). These kinds of impacts also suggest that growth in tourism activity leading to mass tourism exerts the kind of pressure on the environment, the community, and the local infrastructure that leads to destination stagnation and degradation (Butler, 2011). Thus, without control and management, unchecked tourism is unsustainable. This perspective will be discussed further in another section of this thesis. It is important to consider a full overview of vandalism incorporating identification of root causes and effective elimination of these causes to address the complexity of the problem. In order to understand the reach of the concept of vandalism, the next section discusses the drivers and core ideas associated with this field.

2.2 DEVIANT BEHAVIOUR AND VANDALISM AND ITS MANIFESTATIONS IN TOURISM

As established earlier, not all acts of vandalism at tourist sites are criminal. There are, however, several legal perspectives concerning deviant behaviours. Crime as a violation of a legal law is a reflection of the norms of society, a result of social construction due to the interaction within society and influenced by the cultural and historic context. Some interests of the ruling class may not be classified as criminal by the law. Certain environmental impacts, for example, such as those involved in major engineering projects, can be politically informed and linked to power and dependent on social inequalities of class, place, ethnicity, and gender.

Another explanation of deviance is the distinction between classical explanation such as those of Beccaria and the positivist views. The early work of Beccaria (cited

inMcCaghy, 2008) classified humans as rational beings who make deliberate behavioural decisions on the basis of a rational evaluation of pleasure and pain. Thus, the decision-making process leading to defacing of statues in a temple is a conscious decision of the perpetrator. The positivist explanation, on the other hand, is focused on analysis of forces beyond the control of a person that determines their behaviour. Thus, the deviant behaviour of a tourist in a tourism setting could be classically explained as pursuing hedonic pleasures or interpreted with a positivist view as an outcome of multiple determinants such as biological, psychogenic, or social factor. For instance, the environment design elements at an attraction could encourage or discourage a vandal from certain behaviours.

Readings from current literature classify vandalism as a motivated behaviour (Cialdini, Griskevicius, Kenrick, Goldstein, & Mortensen, 2006). There are numerous definitions of vandalism that highlight intentionality, destructiveness, and property ownership as key features (McGuire, 2004; Millie, 2008). For example, if a visitor to a national park cuts the tree, it is an act of vandalism, but the same act by a park ranger does not attract a similar labelling. The ranger is exercising the right of property ownership and the action, guided by authority, will perhaps enhance the property value unlike the action of the visitor. Clearly, vandalism is a 'person-environment' interaction event and is influenced by the context. It is 'otherwise acceptable behaviour in an inappropriate context' (Pitt and Zube in Goldstein, 1996, p. 21). The norms and traditions of the community and individuals provide insight in understanding vandalism. Christensen and Clark (1983) exclude depreciative behaviour from the realm of vandalism. Similarly, Cohen's (Ward, 1974, p. 23) seminal and much-cited work on

vandalism defines it as 'a label attached to certain types of behaviour under certain conditions'. Thus, factors such as tradition, ritual, play, awareness, and responsibility may restrict a certain act from being classified as vandalism.

Use of a continuum ranging from deliberate acts of property destruction classified as normal by the society, at one end, to unacceptable acts of property damage at the other extreme throw some light on the discussion. While the latter acts are labelled as vandalism, the former are condoned and accepted on the pretext of being a part of such accepted conduct as a ritual or play. Other acceptable labels are written-off (reduction in value of the asset) and walling-in (sealed behind a wall). Thus, actual damage to cultural property by visitors may not classify as vandalism unless such behaviours are seen by the wider community as inappropriate. Further, a visitor unaware of the local norms and definition (rules) may also unwittingly exhibit undesirable behaviours. For example, smoking in an art gallery may not appear to everyone to be an act of vandalism, but the cumulative effects of such behaviours on artwork is highly destructive. If the behaviour is explicitly not permitted, then the tourist who smokes is arguably committing an act of vandalism. The following section attempts to identify and synthesize some of the key theoretical frameworks that have the potential to influence deviant behaviour.

2.2.1 Influences on deviant behaviour

The discussion focuses first on the broad perspectives on deviant behaviour classified under micro-level influences and macro-level influences in Figure 2.1. The discussion is followed by a case study explaining the manifestation of vandalism in a tourism setting.
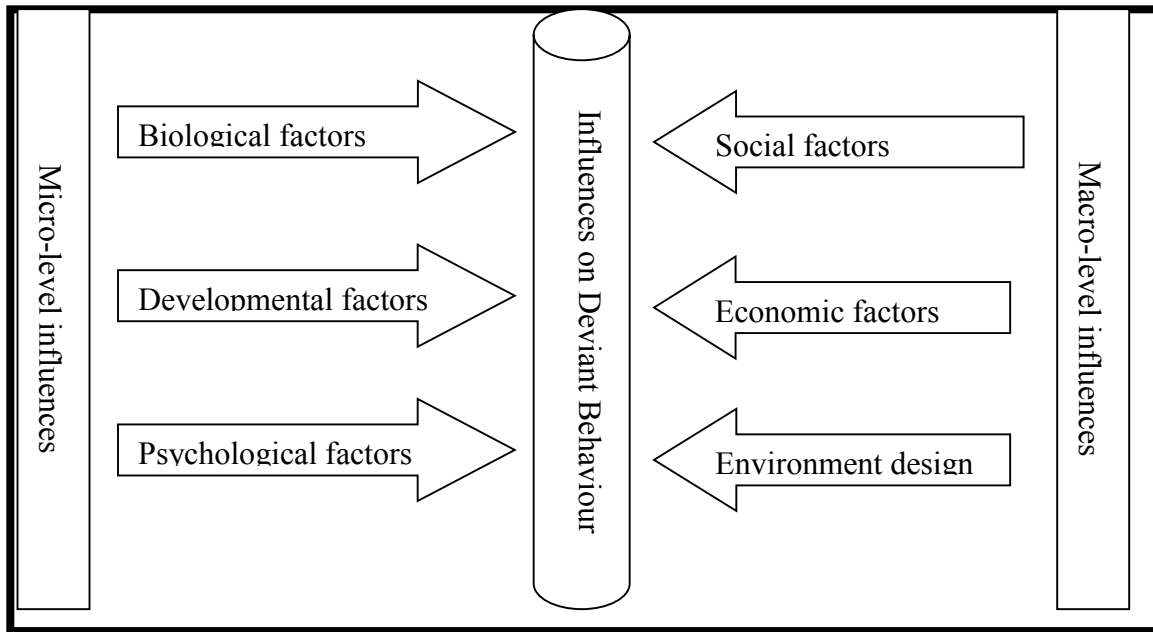
Figure 2.1. Micro-level and macro-level influences on deviant behaviour

Newman (1972a), Wincup and Griffiths (1999), Marsh (2006), McCaghy (2008), and Winfree and Abadinsky (2010) locate deviant behaviour in biological, psychological, social, economic, and environmental reasons. The concept of crime and deviance are separated by a distinction in both legal codes and social codes. While crime is understood as an act that breaks the law, deviance is explained as departing from social norms and practices. Crime is easy to establish (as long as there is a defined legal framework) while deviance is more complex as it is difficult to establish what is considered normal in a society. There are judgments of both a cultural and personal nature affecting the appraisal of deviance. Crime and deviance do overlap as most criminal acts are also viewed as deviant acts. However, criminal acts may not always infringe on social norms and values. Mercy killing is criminal in nature but does not violate social norms in some communities. On the other hand, littering is breaking a social code but may not be criminal in nature. Vandalism is defined as a wilful act of property damage and relates

closely to the concept of deviance. For the purpose of this study, the concentration will be on deviant behaviour. Many explanations of deviant behaviour do merge with the construct of crime. Nevertheless, the approach adopted here strives to limit the discussion to deviant behaviour and, specifically, vandalism.

2.2.1.1. Micro-level influences on deviant behaviour

Biological explanations of human behaviour have been criticised widely, however, there is rich literature explaining the role of biology in understanding human conduct (Beaver & Walsh, 2011). Biologists generally adopt reductionist, materialist, and deterministic approaches to explain human acts and actors (Marsh, 2006). Linking observed acts and actors to physical issues, hormones, male age crime curves, behavioural genetics, molecular genetics, brain structures, and development of the brain are some of the biologically based theories presented to explain behaviour (Harmon-Jones & Winkielman, 2007; Hollin, 1992). There is some speculation involved in linking all deviant behaviours to biological imperatives, but there is a body of work of some power in this field. It should be noted that behaviour is an interaction of various factors including biological factors and it is difficult to access the importance of all the factors (Beaver & Walsh, 2011). A bio-social explanation where a combination of biological factors and the environment are both fully considered is widely seen as offering a compelling understanding of the multiple determinants of complex actions (Bernasco, 2013; de Vries-de Bruijn, 1978).

Psychologists have tried to explain that deviant behaviour is a combination of developmental factors, situational factors, and psychological traits of an individual. The early work of Goddard and Louis Clark Vanuxem (1984) tried to establish a negative co-

relation between intelligence and deviant behaviour. The explanation of the deviant behaviour was seen as a lower intelligence level resulting in an inability to understand the law and social norms. Another psychological trait, impulsivity—that is, acting without thinking—is also linked to deviant behaviour. Impulsivity suggest that individuals lacking self-control act on impulse, often breaking the law and social norms. Similarly, Rotter (1975) employs the locus of control concept as another force underpinning the explanation of behaviour. According to this perspective, offenders generally have an assumed external locus of control and blame the consequences of their actions to external factors such as luck or poor facility design. The failure of multiple studies to replicate the locus of control scale represents a problem in its continued use, and without solid empirical support, the work is effectively a circular restatement of the problem with different terms.

Similarly, psychodynamic approaches are based on Freud's work link behaviour to the unconscious mind. The inability to test the proposed unconscious processes has led to much criticism of Freud's work (Ahbel-Rappe, 2008; Sadger & Dundes, 2005). Freud's work does, however, bear brief consideration because he devoted quite a lot of time working on shades of aggression (Muris, 2006). There is some value in recognising that the roots of aggression Freud identified, namely, sexual frustrations and misplaced libido fixators, may have some contemporary credibility in that a component of graffiti and destructive acts often has themed paintings or images that are sexually explicit and perhaps intended to shock others (Hillman, 2013; Wiseman, 2008).

2.2.1.2. Macro-level influences on deviant behaviour

Moving away from the biological or psychological factors affecting individual behaviour, the role of social factors such as community (social) disorganisation and poor social conditions are suggested by Sutherland (1937). Other general learning theories, including Skinner's operant behaviour and Pavlov's conditional reflexes (Gnoth, 1997), could be seen as having specific roles in learning and reinforcement for vandalistic behaviours. This thesis and its research studies are not directly concerned with the detailed explanations of behavioural origins, but instead concentrate on stakeholder responses to treat behaviours. Other more interactive approaches to explaining deviant behaviours, such as the routine activity theory and the hot spot theory, emphasise cognitive influences on behaviour (Felson & Cohen, 1980). These approaches, which have already been used in tourism studies, will be considered in more detail in a later section in this chapter.

The preceding discussion of biological influences and psychological influences on behaviour was necessarily linked to social factors. Thus, having noted the biological and psychological perspectives, the following section looks at explanations from sociological perspectives. As mentioned earlier, the classical view of deviant behaviour is based on the notion of the rational offender where an individual's behaviour is based on rational calculation of the consequences. The approach does not explain why certain individuals become offenders. Structural functionists maintain that society consists of the various institutions and groups that have mutual influence and result in a social system. Any threats to destroy this social system (society) are dysfunctional and so are the related behaviours. The strain theory examines social conditions and situations that lead some

people to break rules and act in deviant ways (Featherstone & Deflem, 2003; Robert, 2012). The conflict between the cultural goals of a society and illegitimate means available to attain those goals lead to socially unacceptable behaviours, effectively to deviancy. Cohen's (1971) subculture theory proposes that delinquent behaviour is not linked to material goals, rather it is an expression. In this view, much vandalism, notably, graffiti and ideological vandalism, can be explained to subculture theory, which focuses on the inequality of opportunity in society. The explanation argues that normal behaviour is conforming, whereas deviant behaviour is abnormal. The abnormality can be attributed to biological, psychological, or social factors. The approach also emphasises the role of an individual in behaving abnormally.

Control theories emphasise the nature of control to prevent deviancy (Hall & Winlow, 2012; Pontell, 2004). In other words, in the absence of any controls, all behaviour will be abnormal. These controls could be external such as family and social control or self-control. Social bonding is the total force in an individual's social and physical environment that makes a person feel connected to the society or the social norms and practices. In the absence of bonds of attachment, commitment, involvement, and belief, the individual may not feel any moral restraints. The consequences are deviant behaviour. In addition to the influence of the social situation on behaviour, interactionist theories study the relationship between the offender and the others (Brownfield & Thompson, 2008; Dotter, 2004). The labelling of the offender by the other members of the society raises the issue of selective enforcement of the law. The process also influences the behaviour of other people in the society towards those who are labelled. This leads to an amplification process for the individual who develops a stronger

attachment with the label attached to them and the related deviant behaviour. For example, graffiti is considered property damage by society, and the graffiti artist is labelled as a vandal.

The economic interpretation of deviance is the attempt to find the relationship with the deviant behaviour and economic factors such as in equal income levels, business cycle, and poverty (Deflem, 2012; Pontell, 2004). In some economic structures, ownership of resources by some individuals results in competition and exploitation of others. The big picture often hints at the inherent inequities in the society encouraging deviant behaviour. It is the ideological standards of normal behaviour and the distanced behaviours that are classified as problematic or deviant (Deflem, 2012).

The final perspective on deviant behaviour is grounded in the opportunity and deterrence in the environment (Newman, 1972a; O'Grady, 2011). It highlights the role of general deterrence, specific deterrence, absolute deterrence, restrictive deterrence, and absolute non-compliance in discouraging offender from deviant behaviour (Ward, Stafford, Gray, & Menke, 1994). Deterrence can be the result of an enforced law, social norm or practice, opportunity for crime, or designs of the environment (Quackenbush, 2011). The certainty and severity of punishment under the legal code, stigma for violating the social code, and increasing capable guardianship of suitable crime targets reduces opportunity for crime and deviant behaviour. The design of the environment in the form of public and private space may encourage social interaction between the residents (local community) and the opportunity to provide surveillance and sense of security to its residents and potential offenders (Clancey, Lee, & Fisher, 2012; Mair & Mair, 2003). The

diversity of land use and proximity of commercial and residential use creates milieu that discourages deviant behaviour (Kennedy, 2012).

Environment design as a factor influencing deviant behaviour is discussed next. The environment provides the context and transmits signals to which a visitor responds. Visitors to a tourist attraction take cues from the environment and adapt their behaviour accordingly. A broad, illuminated pathway signals the visitor to use the walkway (Geller, 2010; Lindsay, Kees, Lucy, & Rodger, 2013). However, do the visitors and the designers derive the same meaning? The social inequalities (gender, class, ethnicity) and the differences in individual, group, or local community's norms and practices influences the translation process and the meaning derived from environmental cues (McCaghy, 2008). Figure 2.2 below illustrates the use of signage and environment design in guiding visitor behaviour. The sign on the left discourages the visitor from feeding the animals at the attractions. The landscaping features in the picture on the left guide visitors to use park facilities such as bench and walking paths.

Figure 2.2. Picture composite to illustrate role of environment cues in shaing behaviour

The discussion of various theoretical frameworks of deviant behaviour such as biological explanations, psychological explanations, social explanations, economic explanations, and environmental explanations identify several factors that influence behaviour. However, it is the interplay of various factors that explains deviant behaviour. The individual theories are helpful in explaining specific visitor behaviours, resulting in vandalism and property destruction at tourist sites.

2.2.2 Manifestations of vandalism and property damage in tourism

Vandalism in tourism can be portrayed as aggression towards property, but there is an absence of literature in applying the theoretical constructs to the phenomenon (Goldstein, 1996; Nepal & Lu, 2009; Xiao & Smith, 2006). Visitor behaviour at tourism attractions is a complex phenomeon influenced by several factors such as the motivation for any action (Bullock, 2011), the intention of the person (Pearce, 2011), and perception of opportunity in the physical setting (Ekblom, 2011a). Figure 2.2 illustrates the forcefield between the three factors.
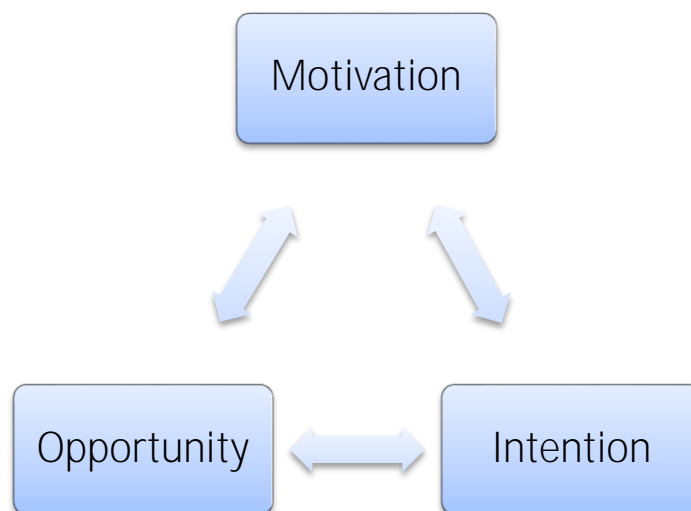
Figure 2.3. The vandalism triangle

The following cases consider a few examples to aid the explanation of the topic. Imagine a group of excited tourists visiting one of the most renowned zoos in the world, the Singapore Zoo. They are visually eager to see the wide range of animals, including the much-talked-about polar bear and the pandas, in their 'constructed' natural environment. The tourists are also looking forward to the well-manicured gardens and boundless flora within the zoo premises. As they meander through the various paths and exhibits of the facility, they revel in the aesthetic beauty of nature that has been further enhanced by the skilful hands of the environmentalists.

However, their revelry is short-lived by the smell of stale food and presence of litter scattered across the exhibit viewing galleries. The trees along the paths are plagued with carvings on tree trunks. In a pensive mood, the group stops for lunch, only to find the sitting gallery and eating areas with broken chairs and benches. The table-tops are carved with explicit drawings in various languages. The visit to the toilet is equally unpleasant, with broken toilet seats, missing toilet roll casing, and graffiti behind the toilet doors. The envisioned 'delighting' visitor experience at the zoo turns out to be an unpleasant trip to the attraction. The dissatisfied, disheartened visitors share their unpleasant experiences with several other prospective tourists who are now contemplating to 'skip' or 'give it a miss' to one of the world's most renowned zoos in the world.

The scenario illustrates the serious effects resulting from vandalism by visitors. Vandalism or property damage by visitors while visiting attractions is a continuing threat to sustainable tourism. Damaged historic and heritage properties that draw the interest of many can leave a community with a large bill and a bad attitude towards tourists. The

experience of the next cohort of tourists is damaged. There are increases in the repair and maintenance budget for the site administration. Some acts of vandalism like grafitti may be a motivated action and an act of expression. On the other hand, litter on the beach may not be premedidated, but is a response to lack of opportunity to exhibit desired behaviour (the absence of a litter bin). While the damage to wall paintings due to constant touching by scores of visitors is not the original intention of the visitor, the common outcome of these acts is damage to property. Another common feature of the above actions and all other acts of vandalism is that these are against the social norms and practices of the local community and wider social setting. It should be noted that while these behaviours are 'anti-social', they may not be criminal in nature. These examples enforce the definition of vandalism at tourist sites/attractions for this thesis as

an act of human aggression that is anti-social, which while not necessarily

invoking criminal charges, does result in damage to, or loss of property.

2.3 MOTIVATION FOR VANDALISM

A South African criminologist, Stanley Cohen (1973) devised the most commonly used typology of vandalism based on six types of vandalism, with each linked to specific motivations:

1. *Acquisitive Vandalism*: Damage committed in order to obtain property or money.

2. *Tactical Vandalism*: Using vandalism to achieve other goals, such as sabotaging a machine to force an extended rest period at work.

3. *Ideological Vandalism*: Vandalism for the sake of voicing a social, political, or other 'cause'.

4. *Vindictive Vandalism*: Damage done to enact revenge. An example is a reaction to perceived injustice from someone in authority (a school principal).

5. *Play Vandalism*: Vandalism performed in the context of 'play', such as who can hit the street lamp the most times?

6. *Malicious Vandalism*: Damage used to express rage or frustration, often directed at property perceived to be 'middle class'. Breakage of street lights in public parks is an example of this type of vandalism.

Cohen used the general motivations he identified to create *types* of vandalism. This vandalism typology has been adopted as the basis for specific analyses of vandalism. Some researchers consider also developmental factors (Cialdini, 2009; Cialdini & Goldstein, 2002; Crotts, 2011; Lorenz, 1970,1977; Mayer, 2002). Other studies focus on the demographics of offenders (Giles & Giles, 2007; Goldstein, 1996; Mayer, 2002; McCormick, 2003). The following section classifies the various theories (drivers) related to the motivation of vandalism into four subheadings: (1) environmental ecological drivers of motivation, (2) human ecological drivers of motivation, (3) behavioural ecological drivers of motivations, and (4) integrative ecological drivers of motivation. Table 2.1 summarises common thematic explanations of vandalism behaviour and key studies related to the themes.

Table 2.1 *Common themes in motivation to vandalism discussion*

Common themes	Authors
Environment design ecological explanations of vandalism	Jacobs (1961) Newman (1972) Wilson and Kelling (1982) Samdhal and Christensen (1985) Morgan and Dolphin (1986) Roncek and Maier (1991) Crotts (2003) Owen (2007) Hollis-Peel, Reynald and Welsh (2012) Cozens and Davies (2013)
Human ecological explanations of vandalism	Buss (1997) Bushman and Anderson (2002) Cialdini and Goldstein (2002) Moscardo (1991) Muris (2006) Huesmann (2007) Myers (2010) Strozier and Offer (2011) Schank and Abelson (2013)
Behavioural ecological explanations of vandalism	Greenberger and Allen (1978) Fisher and Baron (1982) Goldstein (1996) McCormick (2003) Giles and Giles (2007) Offler et al. (2009) Thompson et al. (2012) Douglas, Burgess and Burgess (2013)
Integrative ecological explanations to vandalism	Cohen and Machalek (1988) Vila (1994) Goldstein (1996) Lewin (1997) McGuire (2004) Clarin et al. (2014)

2.3.1 Environment design ecological explanations of vandalism

The motivation for vandalism has been discussed within the field of sociology, social geography, education, behavioural sciences, and criminology. 'The causes of property damage/vandalism are to be found in changes within society and in society's ability to integrate all its members' (Offler et al., 2009, p. 21).

Traditionally, crime has been correlated with income, age, family, and other demographic variables (Marsh, 2006; Pizam, 1999; Pizam & Mansfeld, 1996). However, Newman (1972b) argues that the impact of the physical environment on deviant behaviour is critical. Newman's defensible spaces concept specifically examines how the environment affects behaviour. He has suggested that most crimes are a result of opportunity rather than being preconceived. As an example, a football pitch during a sports match is a public defensible space, whereas the pathway leading from adjacent parking areas might not be under surveillance and a more likely venue for vandalism. Thus, the key to addressing deviant behaviour is to reducing the opportunity rather than displacing it. Several studies show that there is a concentration of criminal activities in a few 'hot spots' (Crotts, 2003; Roncek & Maier, 1991). This approach suggests some sites are targets because there is a convergence of opportunities that facilitate vandalism and criminal behaviour.

Newman advocates the case for a community's ability to come together in joint action and influence the physical environment to deter unwanted behaviour. Joint actions have become essential for long-term survival of tourism infrastructure as the use of force (police) without community consent, direction, and control can be irritants rather than deterrents. To set the norms of behaviour and the nature of activity possible within a location, it is necessary to have clear, unquestionable control over what can occur there. In such environments, criminals will perceive their likelihood of detection is greater and the opportunities to escape once a crime is committed more limited (Crotts, 2003). Design can make it possible for both the inhabitants and the visitors to perceive that an area is under the undisputed influence of a particular group, that they dictate the

acceptable and unacceptable behaviour and activity within it. The potential criminal perceives such a space as controlled by its resident or guardians, identifying them as an intruder who is easily recognised and whose presence is unwanted. Crime control can be achieved by creating a situation in which it is possible for the potential victim to be recognised in advance as well as assessing who might be a potential criminal. A criminal will rarely commit a crime in a space in which they know they will be easily recognised.

Creation of a sense of guardianship in an environment includes mechanisms—real and symbolic barriers defining an area of influence, opportunities for surveillance—that combine to bring an environment under the control of its inhabitants. The concept highlights the need for clear demarcation of areas of activity for particular users and acceptable behaviours. It provides natural opportunities for visual surveillance and a check on defaulters, thus creating defensible space. In the area of crime prevention, the physical environment can be manipulated for mechanical prevention. Defensible space design, while it uses mechanical prevention, formulates a model of corrective prevention (Newman, 1972a).

Newman argues that space can be categorized into private, semi-private, semi-public, and public space. Private and public space is defined clearly. For example, a private garden is private space, and city square or public beach is public space. The other two categories are defined less clearly. Since these spaces are shared and present a reduced sense of ownership and responsibility, it is here that most problems can occur. Some semi-private and semi-public spaces, such as recessed doorways and alleyways, are popular with vandals (Owen, 2007). It is also worth noting that greater tolerance to behaviours and a wider range of behaviours are expected as we move from private to

public settings (Moran & Dolphin, 1986), that is, the control and likelihood of deviant behaviour increases as one moves from private to public space. The elements of defensible space, such as territoriality and surveillance, help reduce space ambiguity. Such design features push a setting towards private space and result in more control over vandalism behaviours.

Newman's approach to defensible spaces was not always supported by subsequent researchers. Pablant and Baxter (1975) did not find a significant link between lighting (Surveillance) and vandalism/crime. Moran and Dolphin (1986, p. 413) challenge the link between visibility and vandalism, refuting Newman's work on the basis of a contradictory prediction, noting that 'individual indicators have different meaning in terms of their interrelationship with other indicators in different environmental context'. For instance, different visitors may differently understand and respond to the environmental cues within the physical setting of an attraction site.

Despite criticism, for other contexts, concepts of environmental design, territoriality, and surveillance can usefully be applied to tourism and deviant tourist behaviour. The design and surveillance opportunities in tourist attractions such as public beaches, historical monuments, and city centres can be described as having a clearer potential to influence vandalistic behaviour. Most historic and public tourist properties score poorly in providing visual surveillance and establishing territorial claims. By way of contrast, more recently constructed tourist infrastructure primarily in urban settings often makes good use of architectural design features in protecting properties. Modern technology has also created new possibilities of surveillance in closed-circuit television (CCTV) and controlled access with early warning systems and the tracking of patrons.

Some forms of ticketing and identification of patrons including key access cards and identity markers may also control who is in these spaces where vandalism might occur.

The concept of defensible space and the role of environment and opportunity has been supported by considerable literature (Christensen, Johnson, & Brookes, 1992; Cozens & Davies, 2013; Samdahl and Christensen (1985)). They considered the behaviour of carving on picnic tables in terms of ecological psychology, i.e., interactions between environmental conditions, people, and behaviour. The argument extends the role of environment cues in shaping behaviour by guiding behaviours that fit the setting. Ecological factors involve interactions between individuals, their activities in a physical environment, and their interactions with the physical environment.

Samdahl and Christensen (1985) refer to these environmental cues as 'releasor cues' as they stimulate otherwise dormant behaviours. Their study of picnic tables employed both the concept of 'releasor cues' and social control mechanisms. Their research findings suggested a two-fold increase in 'fresh carvings' on previously carved tables due to releaser stimuli. On the other hand, tables with higher surveillance had fewer carving incidents, a finding that attributes behaviour to external control factors such as the presence of authority. Interestingly, Christensen also established a link between the presence of external control and stimulation of internal control mechanisms such as acceptable behaviours and social values and morals. The work of Greenberger and Allen (1978) in exploring vandalism in school settings extends the role of aesthetics, that is, enjoyment in vandalism. They employed ecological psychology principles to vandalism and concluded that the change in an object's initial appearance and in its appearance after being vandalised may serve as a stimulus for destructive behaviour.

Thus, they supported the argument that environment and physical condition of the object or space increases the opportunity for deviant behaviours (Hollis-Peel, Reynald, & Welsh, 2012; Massoomeh Hedayati, Aldrin, Nordin Abd, & Mohammad Javad Maghsoodi, 2011).

The role of the environment in influencing behaviour is also acknowledged by the 'broken windows' theory, which emphasises the importance of early detection and rectification or repair of minor disorders such as litter, graffiti, and defaced surfaces as these may serve as releasor cues and lead to more serious transgressions (Katy, 2007; Thompson et al., 2012; Wilson & Kelling, 1982). In other words, the presence of vandalism, in whatever form, creates an environment where vandalism (property damage /deviant behaviour) is perceived as normal and therefore increases in frequency and salience.

Other studies suggest it is not so much the physical place that produces criminal incidences, but more the type of place that presents and concentrates opportunities for predators (Sherman, Gartin, & Buerger, 1989). A response in the form of a security force may serve only to displace motivated offenders to other opportunistic locations with suitable targets and ineffective guardianship such as neighbourhoods, parks, and bars. Crotts (2003, p. 95) observed that 'communities that solely adopt such a reactionary approach to criminal victimization must be prepared to constantly refocus their attention on a shifting target' (2003, p. 95). This view reinforces the concerns about displacing vandalism rather than preventing it.

The above theories provide an explanation for the role of environmental factors as a strong influence for the motivation of deviant behaviour. The discussion highlights the

role of external influences such as the design of the environment in enabling opportunity for guardianship and the importance of opportunity-reducing tactics to discourage crime. However, it would be inappropriate to view the environment as the only influence on deviant behaviour. The containment theory of deviance identifies internal and external mechanisms of control that shape unsuitable behaviours (Reckless, 1972). The discussion points in the direction of growing importance of internal behavioural factors and developmental influences on behaviour.

A number of broad societal, developmental, and environmental factors that are thought to be involved as constructs shaping abnormal behaviour have been discussed. Internal psychological forces result in an observable response when external stimuli, such as environment cues or lack of surveillance offer an opportunity. It is central to mention that these internal and external factors do not work in isolation and overlap in most explanations of deviant behaviours.

2.3.2 Human ecological explanations of vandalism

Early research on abnormal human behaviour can be traced to Freud's (Muris, 2006) psychoanalytic theory, which is still an influential theoretical model. Both Freud's and Lorenz's instinct theory of aggression (Strozier & Offer, 2011) offer internal explanations of human behaviour. According to early studies, aggressive energy is a pent-up instinctive drive in humans that may be released by external stimuli. The internal build-up may be expressed in some form (Sadger & Dundes, 2005; Strozier & Offer, 2011). Freud's analysis has been challenged and dismissed because the main concepts of the theory could not be validated empirically (Buss, 1997; Muris, 2006). Myers (2010) suggests that Freud's instinct theory fails to clarify cultural and individual variability in

explaining human behaviour. However, these early explanations point to an important possibility that human behaviour including vandalism may have much of its origins in childhood.

Muris (2006), who focused on the origins of abnormal human behaviour, discussed four factors shaping adult tendencies: (1) characteristics of the child, (2) early interaction between children and their parents, (3) learning experiences from the environment, and (4) societal influences. The approach highlights both the role of biological and developmental influences on behaviour.

In support, Crotts (2011) explained deviant behaviour by linking needs to behaviour and classifying behaviour as a conditioned automatic response. He suggested that the human brain is a highly efficient organ and is influenced by structured externally reinforced learning, but at the same time is capable of more spontaneous self-initiated learning styles. In other words, research indicates the human brain is always moving from deliberative (explicit) to automatic (implicit) control in its decision making (Cialdini, 2009; Cialdini & Goldstein, 2002; Crotts, 2008). These studies point to the role of developmental factors in driving motivation for vandalism. In addition, social factors also contribute to explanations of deviant behaviour.

Another broad-ranging generic line of enquiry fits this topic area. Social learning theory attributes behaviour to observation-based learning (Bushman & Anderson, 2002). People acquire social behaviours through direct experiences or by observing others. Huesmann (2007) interpreted observation-based learning through principles of script theory. According to script theory, a person selects a script (pre-determined action plans) to represent a situation and assumes a role in the script similar to an actor in a movie

(Moscardo, 1991; Schank & Abelson, 2013). Children may observe such scripts repeated on mass media or immediate social surroundings and assume specific roles and behaviour within the scripts. This theory is helpful in simplifying the understanding of behaviour as compared to complex judgment-decision-based behavioural models (Erasmus, Bishoff, & Rousseau, 2010; Fischer, Kollar, Stegmann, & Wecker, 2013). The theme of imitation and copying behaviour is also useful in explaining reoccurring acts of aggression or vandalism.

2.3.3 Behavioural ecological explanations of vandalism

This section explores 'needs satisfaction' as the main influence of motivation to vandalise. Theories linked to specific needs of enjoyment and expression are discussed as foundations to behaviours leading to vandalism (Douglas, Burgess, & Burgess, 2013). For example, Goldstein (1996) proposes that schools are a source of boredom for teenagers and therefore encourage increasing levels of vandalism. Although the example does not involve a tourist or tourist setting, it illustrates the concept of *enjoyment theory* and may be identified as a core motivational factor behind increasing levels of vandalism (Offler et al., 2009). Understanding the motivations for this behaviour may also identify possible solutions. For example, vandalism is often the result of play and excitement seeking amongst children and, as such, is not malicious. However, the universal application of enjoyment theory is debatable as the logic in the preceding example may not be the case for a group of visitors littering public beaches with leftover food and trash.

On the same lines, Greenberger and Allen (1978) argue the case for enjoyment and pleasure in vandalism with the help of *aesthetic theory* built on Cohen's typology of

Play Vandalism. The theory highlights the enjoyment and pleasure arising from the act of destruction. The appearance of the object in its surroundings, the process of destruction, and the post-destruction appearance of the object cumulatively serve as a trigger for vandalism. For instance, the appearance of a historic statue in its surrounding, the act and pleasure of defacing the statue, and the anticipated appearance of inspecting the remains may serve as cues to vandalism. The theory highlights the role of physiological factors that are inherent in the act of destruction and deviant behaviour. However, as agreed by the proponents as well as Goldstein (2004), the theory is not applicable to all acts of vandalism. Both enjoyment theory and aesthetic theory are useful in explaining vandalistic behaviour to satisfy hedonic pleasures arising from the act itself or from perceived appearance of a vandalised object in its surrounding.

Other than pleasure-seeking behaviour, vandalism may be the result of social expression. Using Cohen's typology of Ideological Vandalism, McCormick (2003) uses sociological theories to consider the ways in which graffiti is used as a tool to define people and their identities. Similarly, another study by Giles and Giles (2007) on graffiti substantiates the theory that graffiti is used as a form of expression and a demonstration of community identity. Graffiti and other forms of artwork or writings are identified as an easy mechanism for writers (vandals) to gain recognition and status amongst peers (Bushman & Anderson, 2002). Similarly, Fisher and Baron (1982) propose that a key motivational factor behind vandalism is perceived inequality, which they labelled equity‐control theory, where a perception of norms and fairness is violated in social and environmental arrangements. The purpose of the vandalism (as constructed in the theory), thus, is to reduce this inequality (Thompson et al., 2012).

2.3.4 Integrative ecological explanations of vandalism

Several general or broad theories of deviant behaviour have been proposed in recent years. A few key theories have been discussed above. However, none of the approaches reviewed attempt to integrate factors across important ecological (environmental and situational), micro-level (internal to the individual), and macro-level (developmental and social) domains to provide holistic explanations of deviant behaviour. Vila (1994) proposed that human behaviour is a combination of all these complex interactions between ecological, micro-level, and macro-level factors. Further, Vila suggests that an individual experiences all these forces over their lifetime and this complexity requires an integrated approach in explaining aberrant behaviours (Clarin, Bitzilekis, Siemers, Goerlitz, & Hodgson, 2014).

The integrationist model offered by Cohen and Machalek (1988) and Vila (1994) expands the evolutionary psychology theory. The approach is helpful in providing a link to behaviour and a suite of factors. Earlier in this chapter, it was acknowledged that acts of property damage and vandalism are an outcome of complex behaviour. These behaviours are guided by a mix of influences (Clarin et al., 2014; Thompson et al., 2012). The model is particularly useful in this thesis as it combines empirical findings and insights from the many disciplines that study deviant behaviour and integrates it into a single comprehensive theoretical framework. The core ideas explain how individual deviant behaviour is influenced by interactions between factors such as ecological, individual, and societal levels over the life course. The model employs theoretical concepts to study human behaviour that, at the same time, gives special consideration to the unique properties of cultural and social factors (McGuire, 2004).

The above view is supported by Goldstein (1996), who maintains that the study of vandalism has received little recent attention from researchers. The study argues that acts of vandalism and other minor criminal offenses set the stage for more serious social transgression, and consequently, the study of property damage and destruction should be vigorously pursued. The argument explained further that vandalism is influenced by both dispositional and environmental factors. The theory therefore maintains that approaching vandalism from an interactionist perspective will produce the most useful theoretical models and practical interventions. However, Goldstein fails to consider the role of developmental and biological variables in vandalism and other destructive behaviours. Although classical interaction models pay little attention to such variables, a multi-dimensional model of behaviour is incomplete when developmental factors are not considered (Lewin, 1997).

In summary, property damages to visitor attractions as a phenomenon cannot be explained simplistically and requires a comprehensive, multi-dimensional, and collaborative approach. This specific approach should address social, environmental, and economic issues in relation to property damage. This thesis outlines a framework to evaluate stakeholder responses to vandalism and encourage sustainable tourism practices. Assessing motivation for vandalism is an important aspect of this study, and analysis of data from the literature was used to assess these perspectives.

2.4 PREVENTION – INTERVENTION STRATEGIES

It has already been argued that the costs of vandalism should be considered in the physical, psychological, social, and economic context. The multi-dimensional issue of property damage requires a multi-dimensional approach to address the issues.

Cohen conceptualized six categories of vandalism (property damage) in his seminal work published in 1973. In chapter 1, Cohen's topology of vandalism was considered. The study proposed six different methods of prevention and control for property damage. The methods were as follows:

Defeatism: an approach where the problem is too trivial to attract attention or its prevention is too hard to enforce. Defeatists often resort to repair and maintenance as a response to property damage.

Deflection: an approach to channel deviant behaviour to harmless or more constructive alternatives such as graffiti walls.

Utilitarian prevention: this most popular approach involves warning to perpetrators and increasing the chances of detection. It involves the use of warning signs, guards, CCTV, and boundary walls.

Education and publicity: this approach argues that individuals with higher levels of awareness of the consequences of property damage are less inclined to damage property. It involves campaigns directed at the public at large or giving briefings to a specific group of visitors at a site.

Deterrence and retribution: finds its roots in the principles of the criminal justice system. It involves better police detection and firm penalties through the justice system. A key feature of this approach lies in shifting the responsibility from the public to the state.

Primary prevention: it involves striking at the root causes of vandalism and property damage. This approach is expressed in the discussion of social preventive strategies covered later in this section.

Table 2.2 *Common themes in vandalism prevention discussion*

Prevention themes	Author	Related theories and concepts
Cohen's typology of primary vandalism prevention	Cohen (1973)	Defeatism Deflection Utilitarian prevention Education and publicity Deterrence and retribution Primary prevention
Social prevention	Gottfredson and Hirschi (1990) Albrecht and Otta (1991) Farrington and Coid (2003) Baron (2006) Lucianetti (2011)	Self-control theory Merton's stain theory
Situational crime prevention	Jacobs (1961) Newman (1972) Felson and Cohen (1980) Vila (1994) Zhao and Liu (2011) Reynald (2011)	Environmental crime protection Defensible space Routine activity theory Environment modification Rational choice Guardianship
Environment design	McGuire (2004) Ekblom (2010) Cross (2011) Cozens and Davies (2013) Duatre, Lulham and Kaldor (2013)	Crime prevention through environment design (CPTED)
Technical and non-technical prevention	Pearce and Moscardo (1986) Vila (1994) Ekblom and Tilley (2000) White (2003) Lavarch (2003) Crow (2004) Offler et al. (2009) Pearce (2009)	Mindfulness Hard and soft techniques Prevention and early identification Community engagement Task force Tertiary prevention and recidivism Education Positive psychology

A key approach to addressing vandalism is social prevention. Social prevention strategies can be explained in more detail. The concept of social prevention focuses on tackling the root causes of property damage and the dispositions of individuals to offend (Albrecht & Otto, 1991; Farrington & Coid, 2003; Lucianetti, 2011). Two theories in

particular have emerged in providing a better explanation to damage prevention. The self-control theory developed by Hirschi (Gottfredson & Hirschi, 1990) explains why people conform, rather than why they commit crime. The theory highlights the influence of elements such as attachment, commitment, involvement, and belief in social bonding of an individual to conventional value. Individuals with weak social bonding are more susceptible to deviant behaviours and as perpetrators. Discussion on stain theory is the next component of this section.

The stain theory by Merton (Baron, 2006) prescribed that damage-prevention strategies should focus on both opportunity structures and treatment of delinquency in the society. Individuals deprived of the opportunity to achieve social goals are more likely to seek alternate and deviant approaches of expression. Damage prevention should focus on creating educational programmes accordingly (Baron, 2007).

Modifications to the physical environment emerged as another set to vandalism control measures. Jacobs (1972) pioneered the conversation on environmental crime protection by highlighting those aspects of the physical environment that may hinder or encourage crime / property damage. However, it was Newman (1972a) notion of a defensible space that attracted most serious attention to this field of crime prevention. In support, Perlgut (1983, p. 125) added that 'vandalism is always against some aspect of the physical environment . . . they may be reacting to the environment, it's physical, managerial, social or economic aspects' (1983, p. 125). Certain components of the physical environment, such as street lighting, boundary fence/wall, spatial location of doors and windows and so forth have great influence on the nature and frequency of property damage. Relating the discussion to Cohen's typology of preventive approaches,

the environmental crime prevention discussion emphasises the deflection and utilitarian strategies concerned with the design and management of the physical environment.

Reflecting on part the foundation work of Jacobs, situational crime prevention has emerged as one of the fastest-growing set of strategies to damage prevention. Initially developed by Clarke in 1980s, it is directed at specific contexts, including manipulations of the environment, reducing the opportunities and reward of property damage and target hardening. It relies primarily on rational choice theory and the routine activity theory (Zhao & Liu, 2011). The rational choice theory suggests that property damage may be discouraged if the environmental setting increases the costs of property damage, while reducing the perceived benefits to the perpetrators. It creates a perception of increased likelihood of apprehension and punishment (Wittek, Snijders, & Nee, 2013). Similarly, routine activity theory proposes three elements that may contribute to property damage: targets, offender, and lack of guardianship (Felson & Cohen, 1980).

The theoretical framework of situational crime prevention proposes five major approaches: increasing the effort to comment property damage, increasing the risk of detection, reducing perceived rewards from property damage, reducing provocations, and removing excuses. Situational crime prevention is instrumental in the formation of evidence-based approaches to construct specific interventions to reduce particular type of property damage. It is applauded for its cost-effectiveness and long-term effectiveness in reducing property damage.

The following discussion draws on Felson and Cohen (1980) routine activity theory principles of capable guardianship. A capable guardian is able to disrupt directly or indirectly the interaction between the offender and a suitable target. The concept of

guardianship has been operationalised and measured in several ways. A survey of the literature acknowledges considerable discussion on operationalising the concept of guardianship (Hollis-Peel et al., 2012; Reynald, 2011a). However, there is a gap in the routine activity literature while evaluating the notion of guardianship (Hollis-Peel et al., 2012).

The concept of guardianship in the routine activity literature is different from its understanding under the *crime prevention through environmental design* (CPTED) property damage prevention approach. CPTED refers to guardianship as the ability of the guardian to intervene in the act of property damage and prevent it. The approach emphasises the real-time feature of the intervention. Guardians may engage in guardianship activities intentionally or unintentionally as long as they are successful in preventing property damage (McGuire, 2004; Reynald, 2011a). Newman (1972a) and Jacobs (1972) had also advocated this basic principle to decrease the risk of opportunistic crime.

According to Duarte, 'CPTED framework is based on the idea that proper and effective design and use of the built environment can lead to a reduction in the fear and incidence of crime, and an improvement in the quality of life' (2013, p. 225). The CPTED principles include territoriality, surveillance, access control, image/maintenance, activity support, and target hardening and were made popular by Cozens and a team of architects (Duarte, 2013). They extended the model from residential settings to wider range of built environments. Recent studies on CPTED note that community participation is crucial in both the design of space as well as its management. Local community participation is helpful in interpreting the intended environment design elements (Leanne,

2011; Pizam & Mansfeld, 1996). The co-designing of the environmental space results in higher level of community participation and a sense of ownership. There is increased interest in understanding design processes from community perspectives (Duarte, Lulham, & Kaldor, 2011). Stakeholder participation ensures effective design and management of intervention strategies.

In another study, Cross (2011) argued that through good design and its processes, the problem and the solution are addressed simultaneously. This feature of simultaneous consultation results in emergence of a priori solution. The exploratory nature of the emergence process creates innovative intervention approaches to property damage. The discussion on hard and soft measures in the next section is another innovative approach to prevention of property damage.

The technical and non-technical preventive approach

Another approach to study vandalism intervention strategies is to classify them on the basis on the primary instrument around which the approach is developed. The two broad categories are technical and non-technical measures or hard and soft measures, respectively. Technical measures are defined as 'hard techniques' employed to address property damage. Several measures under the CPTED philosophy, such as target hardening, access control, mechanical surveillance, and territoriality, are considered as technical measures. The literature on situational crime prevention also emphasises hard techniques employed to counter property damage / vandalism (Ekblom, 2010; Ekblom & Tilley, 2000). Non-technical measures, by way of contrast, include approaches to develop collaborative strategies to tackle the problem. Increased community participation and involvement of key stakeholders are examples of non-technical measures. The 'softer

techniques' involved educating the visitors and key partners, creating a sense of ownership and belongingness, and using increased mindfulness to prevent acts of vandalism.

Technical measures are most effective when appealing to perpetrators who are motivated by challenge or who are involved in risk-taking. In other words, technical measures are helpful in reducing deliberate acts of property damage. Nevertheless, it is important to employ non-technical intervention strategies to appeal to most visitors. Most incidents of crime are not deliberate. Thus, a combination of technical and non-technical techniques is most effective in addressing the complex phenomena of vandalism. For instance, a popular lifestyle precinct such as Orchard Road in Singapore or Khaosan area in Bangkok city could use CCTV cameras and increased street lighting as technical measures and complement that with a powerful education programme to stop property damage. Approaches to promote community pride in, and symbolic ownership of, specific visitor attractions are also appropriate. Importantly, some evidence in the current literature suggests that increased enforcement and the introduction of technical preventive measures alone do not have a significant impact on the levels of property damage (Offler et al., 2009). Table 2.3 below lists a range of technical and non-technical techniques that could be adopted in various combinations to arrive at a holistic, comprehensive, and multi-dimensional approach to tackle property damage. This kind of comprehensive approach is helpful in forming or collaborating relationships among the stakeholders.

Table 2.3 *Technical and Non-Technical Behaviour Intervention Approaches to Address Property Damage*

Behaviour Intervention Strategies – Technical
• Prohibition of the sale of spray cans of paint and sharp tools to underage person and those with a record of deviant behaviour.
• Establishment of community clean-up squad to remove graffiti and litter.
• Reporting a perpetrator/vandal in the act to staff or use of a hotline number.
• Clean-up of the physical and social environment of the visitor attraction use of vandalism-resistant materials such as tamperproof surfaces, break-resistant facilities, scratch-resistant films, and glass panels.
• Installation of increased lighting in secluded areas and erection of higher boundary walls/fences.
• Installation of operational and dummy CCTVs.
• Research into effective strategies
Behaviour Intervention Strategies – Non-technical
• Employing a holistic approach to eradicating vandalism.
• Gap identification and recommendations for best practices to stakeholders.
• Increased presence and visibility of patrolling staff.
• Establishing community watch for key stakeholders and public.
• Enlisting community support and ownership.
• Implementing education programs for visitors before or during the visit.
• Increasing the level of mindfulness with the visitors and key stakeholders.
• Joint projects between the community, site management, and/or local authorities.
• Community engagement by building relationships with key community groups.

A key element of soliciting community participation is a sense of belonging and ownership of the visitor attraction across all levels of the local community who are affected by property damage. This communication should indirectly be reaching potential perpetrators within the community. Creating community awareness of the consequences of property damage through publicity and education programs is influential in creating a sense of belongingness. The increased level of belongingness within the community is instrumental in increasing community self-esteem and a sense of ownership and importance of the resources of the visitor attraction.

Involving the local community in the dialogue discussing property damage and seeking their opinion in devising intervention strategies is a source of empowerment and

promotes ownership among the general public. Community participation is an important non-technical strategy (discussed above) in curtailing vandalism. Offler et al. (2009, pp. 33-34) discuss successful case studies where a combination of technical and non-technical strategies helped in encouraging core values of empowerment and ownership in developing long-term sustainable practices in reducing vandalism. The examples discussed were the 'Go Ahead' public bus anti-vandalism campaign in the UK, the graffiti control campaign in Bankstown City Council, Australia, and a community policing initiative by San Diego Police Mid-City Division, California. While global application of these measures is not guaranteed due to the differences in culture and local context, a general understanding is helpful in tailoring such strategies to local contexts. It is important to establish the difference between property damage control and damage prevention. In this kind of work, damage control refers to a reactive strategy, while damage prevention signifies proactive approaches to reducing property damage at tourist attractions.

Another approach to crime-prevention strategies is to classify approaches focused on the individuals' levels of risks of committing crime. Brantingham and Faust, as cited in Nichols and Crow (2004), identified three types of prevention. They considered primary prevention directed at modification of the environment, secondary prevention directed at early identification and intervention, and finally, tertiary prevention directed at the control of recidivism. Another study argues for a distinction between social and situational approaches to preventing property damage (Sutton, Cherney, & White, 2008). In general, social crime prevention is concerned with tackling the root cause of crime, while situational crime prevention emphasises the target and guardianship aspect of

crime. The various typologies of damage prevention place emphasis on measures of law and order, criminal justice prevention measures, or practices outside of the criminal justice system. In some typologies of crime-prevention strategies in the existing literature, the categories in fact overlap (Zhao & Liu, 2011). This thesis does not discuss the damage prevention typologies. The focus in this work is on developing an understanding of theories and practices with the help of prevention typologies.

Considerable energy and resources have been directed at understanding vandalism and devising preventative schemes. (Thompson et al. (2012); Vila (1994)) suggest that the current literature provides many intervention strategies such as protection and avoidance, deterrence, external control, education and social programs, and criminal justice system for serious transgressions. Further, modification to the environment in the form of physical design providing improved surveillance and territorial claim by adding symbolic barriers such as sign posts, gates and fences (alley gates), and improved lighting to reduce the ambiguity of territory claim and guide behaviour.

Other opportunity-reducing situational factors such as target hardening, immediate repair, which interfere with the vandal's ability to conduct their behaviour, make a violent behaviour appear riskier, more difficult, and less rewarding are often included in prevention and control strategies (Mair & Mair, 2003). However, these strategies are not free of criticism and remain largely untested. For instance, Crotts (2011) dismisses protection and control strategies through routine activity theory as these measures merely displace the location of the incident without having a meaningful impact on frequency of vandalism. Other theories are criticised for their cost and impractical implementation to specific situations.

While intervention linked to defensible spaces may help, there is a need to focus the underlying social causes, the motivation behind vandalism, and related intervention (Offler et al., 2009). Several empirical studies related to crime at visitor attractions conclude that qualitative methods of understanding the different types of crimes and approaches to address such behaviours are more effective in achieving the desired outcomes (Pizam, 1999; Tynon & Chavez, 2006a). Another study in the Zeke Island in North Carolina argued that natural settings and signage can be most successful in shaping visitor behaviours (Herstine, Hill, & Buerger, 2006). Criticisms of these studies acknowledge their contribution to protection of visitor attraction sites, but at the same time point in the direction of additional considerations in the form of travellers' needs and satisfaction.

Evaluating the effectiveness of strategies employed to curb vandalism is a key aim of this thesis. Thus, the aims of the study include the issue of identifying approaches to prevent vandalism in an Asian context and to assess the perceived effectiveness of such approaches. The socio-cultural nature of property damage presents a very complex phenomenon for research. The strategy to address the problem should be sensitive to contextual elements such as the beliefs and attitudes of the local community, existing dimensions of intervention strategies, and the nature of collaboration between the stakeholders.

2.5 ASSESSMENT OF LITERATURE GAPS AND RESEARCH OPPORTUNITIES

The current literature which underpins this study has roots in criminology, stakeholder perspective, sustainable tourism development and visitor attraction management mostly in the Western context. These existing studies are helpful in enriching our understanding. However, the following four points highlight some key gaps in the literature. The gaps that have been identified in this section serve as the opportunities for further study in this thesis.

2.5.1 Absence of study of tourist vandalism in an Asian context

Firstly, vandalism in tourism has not attracted much attention in mainstream research, especially in the Asian context where economies have a considerable reliance on tourism revenue. Since research in South Asian countries is poorly represented, most tourism constructs and research findings in the area of tourist behaviour are based on Western studies (Nepal & Lu, 2009). It is difficult to make a direct application of these Western empirical studies and principles to an Asian setting, where social norms, expectations for individuals, and the role of local authorities are very different from Western contexts (Sofield & Li, 2011; Xiao & Smith, 2006). This research aims to extend the concepts and exploring the theoretical application of key approaches in the sustainable tourism literature. Selected theories, concepts and frameworks have been adopted in attraction management studies. However, whether or not they are applicable in Asian context is unanswered.

This study will attempt to address the knowledge gap by analysing two popular tourist destinations in tropical South-East Asia. The two destinations, Bangkok and

Singapore, are host to more than 15 million tourists annually (Manu, 2010). They appeal

to a different target market when compared to Western destinations. These Asian

destinations are also characterised by a unique set of environmental factors, such as the

roles of the government, community attitudes to tourism, expected tourist behaviour,

economic dependence on tourism, and the perception of environmental values and

impacts. The cultural variance, diverse value systems, and socio-economic considerations

result in additional parameters when devising intervention strategies (Jordan & Aitchison,

2008; Wearing, Stevenson, & Young, 2010). Thus, an analysis of the nature of strategies

and evaluation of their effectiveness in a Western location may differ vastly for a tropical

Asian site. The study attempted to analyse alternate explanations and conceptualizations

of tourist vandalism and to compare the findings with those arising from studies in the

United States, Europe, Australia, and elsewhere.

2.5.2 Absence of analysis of stakeholder responses and their effectiveness in
responding to vandalism

Secondly, while there is an increasing literature focusing on importance of stakeholders

and stakeholder management within sustainable tourism policy development, empirical

studies call for due consideration of all stakeholders' views to arrive at a holistic

approach to sustainable tourism (Paskaleva-Shapira, 2007; Timur & Getz, 2008b). The

tourism industry comprises several stakeholders, such as visitors, owners, and managers

of tourist attractions and properties as well as the communities who act as hosts to

visitors and provide resources to developers of tourist infrastructure. Finally, the

government is also responsible for strategies that enable its society to develop and enjoy

the economic benefits of tourism. Each of these stakeholder groups is guided by

divergent interests, goals, values, and perspectives and exhibit different levels of commitment and responsibility. All groups must be drawn into the process of tourism planning and development. As illustrated in Figure 2.4, this thesis attempts to achieve congruence in a force field created by divergent stakeholder interests by developing a perspective built on empirical evidence grounded in the current literature and obtained from measuring actual practices and views. The views of visitor group are excluded from the discussion. The motivation of the visitor group is different from other stakeholder groups in the figure as visitors represent the consumer. In fact, management of visitor behaviour is the focus of this thesis.
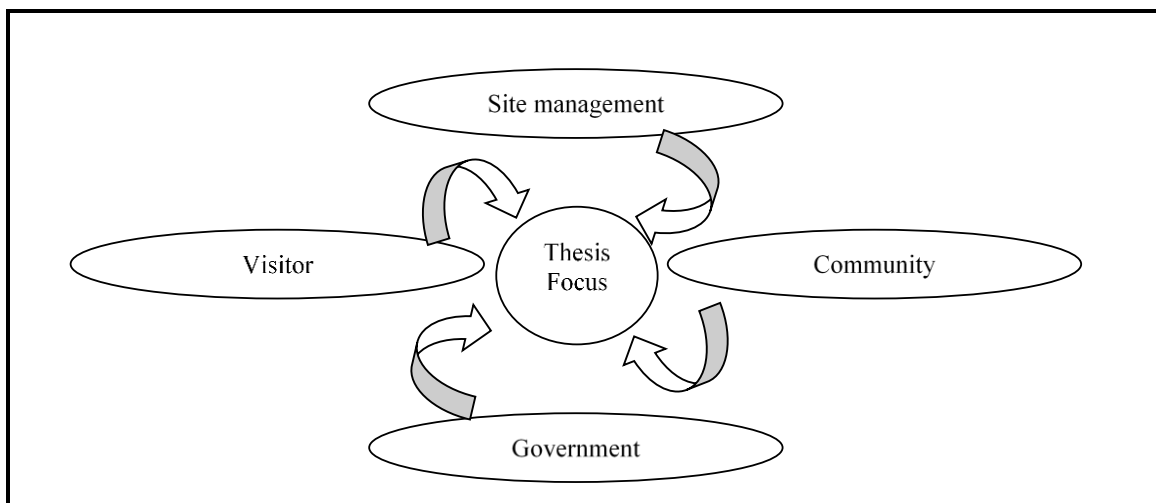
Figure 2.4. A view of the stakeholder force field contributing to vandalism perspectives

2.5.3 Absence of a comparative study of cross-cultural issues in vandalism

A further issue is the limited evidence about cross-cultural research in vandalism or property damage in the tourism sector. This research aims to create new knowledge in the form of a comparative study of the actual incidence of vandalism by tourists. The findings may act as a mirror reflecting cultural issues in comparison, and thus enhance international understanding (Wearing et al., 2010). The set of studies explores the

intervention strategies adopted by stakeholders to correct deviant visitor behaviours in two diverse cultural and economic settings of Singapore and Bangkok. The comparison will reveal the scope of standardizing or customising future initiatives. The study will reveal gaps and opportunities for future research directions and design and implementation of future behaviour intervention strategies.

2.5.4 Absence of using alternative explanations and conceptualizations of tourist vandalism

The final opportunity lies in exploring an emic perspective of how stakeholders at different locations define vandalism, local community's current and future attitudes towards property damage and desired roles/initiatives to curd vandalism. A survey of the literature suggests that the concept of vandalism varies considerably worldwide (Clarin et al., 2014; Thompson et al., 2012). Although tourist vandalism is clearly understood as a problem, there has not been a common definition to describe the phenomenon. The acts and behaviours acceptable in a community may vary vastly from acceptable standards in other communities. Thus, how people explain vandalism and perceive tourist behaviour has an impact on mechanisms underlying the prevention of vandalism. In addition, tourism research has been carried out mostly in the peripheral areas (Cottrell, Vaske, Shen, & Ritter, 2007; Yang & Wall, 2008). This gap provides an opportunity in assessing emic perspectives in urban areas (Schofield, 2011).

2.6 RESEARCH PARADIGMS AND PERSPECTIVES

A 'paradigm is a basic set of beliefs that guide action' (Lincoln, Lynham, & Guba, 2011, p. 91). In other words, the approach to conduct a study and report its outcomes is known as a paradigm. A paradigm is 'the fundamental model or frames of reference we use to organise our observations and reasoning' (Babbie, 2010, p. 33). A paradigm is defined and distinguished in four fundamental ways: ontology, epistemology, axiology, and methodology (Jennings, 2010).

Ontology: the nature of reality / how is the world perceived?

Epistemology: what is the relationship between the researched knowledge (known) and the researcher / how is the knowledge acquired?

Axiology: how is the knowledge valued / what are the basic assumptions in the research process?

Methodology: what is the process of conducting research / how will the researcher collect data?

According to (Lincoln & Guba, 1985) there are three paradigm eras : the prepositivist, the positivist and the postpositivist era. The role of a researcher has been transformed from a passive observer in the prepositivist era to active observation and evaluation of scientific method in the positivist era. The central aspects of positivism were reversed in the postpositivist era. The new thinking has been characterized by the construction of multiple realities considering the interactive relationship between the researcher and the "object" of inquiry. The key features of post-positivism are: possibility of generalization, possible causal linkages and value laden truth.

The major paradigms in contemporary tourism research are positivism, post-positivism, critical theory, constructivism, feminism, and pragmatism. Mainstream tourism research is often within the positivism and post-positivism line of enquiry. In recent times, positivism has been downplayed in favour of post-positivism paradigm in tourism research (Lincoln et al., 2011). Jennings (2010) has observed a gradual shift in tourism research towards qualitative approaches associated with post-positivist enquiry to obtain deeper meanings and outcomes. The legitimacy of non-positivist paradigms is well established and equal to positivist and other conventional paradigms (Denzin & Lincoln, 2007). However, Pearce (2005a) argues that positivism is a fundamental perspective in studying disciplines such as economics, psychology, geography, and sociology. Tourism research, with its roots in these disciplines, should recognise the contributions of positivism but adopt a broader line of enquiry to achieve the subjective and multiple nature of truth.

This thesis is guided by post-positivist and constructivist (interpretive) paradigms. Following the view that one topic can be studied using different paradigmatic approaches (Jennings, 2010), this position is derived from the similarities in the ontology, epistemology, axiology, and methodology of the two related paradigms. The basic belief of post-positivist is critical realism—reality is imperfect and can be understood partially. The hidden variables and the lack of absolutes in nature make it difficult to understand reality completely.

Post-positivists use a modified quantitative methodology wherein more questions are asked because of the unknown variables involved in research with the objective to get as close as possible to the knowledge (answers). The second paradigm adopted in the

thesis, a constructivist approach, takes the subjective nature of reality to another level, that is, relativism—reality is local and co-constructed. Multiple realities co-exist due to different social contexts and experiences. Reality varies in form and content depending on the person who holds them. This paradigm involves a hermeneutic methodology by dialectically comparing and contrasting individual constructions. This approach generates one or a few constructions based on general consensus.

The post-positivist perspective suggests a partial understanding of the reality; it should be checked, evaluated, and negotiated. In this thesis, the post-positivist approach predicts the explanation of acts of vandalism and property damage–related tourist behaviour based on causal relationships. The relationships assist in making generalisations to explain current and future tourist behaviour. Employing a quantitative methodology, data are gathered using questionnaires and audit schema. This approach deductively links current knowledge and theory related to vandalism and property damage to determine its applicability to the tropical East Asian context (Liburd, 2012; Lincoln et al., 2011).

Constructivism assumes that there are multiple explanations and realities. The constructivist paradigm assists in 'evaluation and negotiation' processes to arrive at the truth or the reality by consensus (Liburd, 2012). The subjective nature of the research process employs a qualitative methodology to create the perceived reality. In this thesis, the attitudes, beliefs, and responses of attraction stakeholders are generated with the help of in-depth interviews to conduct a comparative cross-cultural study in this thesis. The approach is useful in acquiring in-depth knowledge of stakeholder attitudes and responses to vandalism.

The combination of the two paradigms and allows the research process to benefit from the synergy of combined strengths (Babbie, 2010; Jennings, 2010). The post-positivist enquiry enables generalisations of reality to similar set of visitor behaviour, attraction sites, or vandalism phenomena. The constructivist perspective enriches the findings and discussions are acting subjective viewpoints and perceptions of stakeholders across different cultures. The discussion on approaches to research in this thesis is extended to considering etic and emic approaches, particularly in relation to the cross-cultural line of enquiry in this work. The next section outlines the use of etic and emic perspectives.

2.6.1 Etic and emic research approach

In order to conduct research, especially comparative studies, there is a need to know how the data will be perceived, the manner in which it will be analysed, and the objectives of the study (Peterson & Rogers, 2013). In cultural studies, perspectives can be classified as the insider view or an outsider view, called emic and etic approaches, respectively. The emic and etic terms are derived from linguistic concepts of phonemics and phonetics (Bala, Chalil, & Gupta, 2012). Phonetics is associated with commonly accepted language roles. Thus the etic approach is about finding common dimensions across cultures. Etic approach, on the other hand, is based on generalisations and observations that are applicable across cultures. It attempts to identify universal aspects of human behaviour to produce theories that are applicable across cultures. Hofstede's study on IBM employees is a notable etic study.

Phonemics is about meanings and contexts of words, and therefore, the emic approach examines culture-specific unique features of different cultures. The emic view

is focused on cultural boundaries and how people within a wider culture perceive, evaluate, and understand the issues. The approach allows for a discussion that is relevant to the beliefs of that culture. The emic approach is useful in exploring the perceptions, attitudes, and responses of a particular culture that are not comparable across all cultures (Gallagher, 2012; Tashakkori & Teddlie, 2010).

There is an ongoing epistemological debate about emic and etic approaches to research (Bala et al., 2012). Though cultures are converging due to globalisation, the value system and basic assumptions in each culture are still different. The etic and emic approach serve different purposes in explaining each culture. Thus, the emic and etic approach is not a dichotomy and they overlap considerably with each other. The two approaches should not be kept apart, rather each should be selected depending on the research phase in comparative or cross-cultural studies. For instance, an exploratory research, which employs theories and methods from an 'external culture', will be classified as imposed etic. The etic approach might seem to be more efficient, but it does have limitations. For instance, data equivalence in cross-cultural research is difficult to achieve as the meaning and accuracy of data vary across cultures (Lung-Tan, 2012; Peterson & Rogers, 2013).

The following illustration provides an application of the emic and etic approach in researching vandalism in tourism. The acts and behaviours classified as vandalism or property damage could mean very different things and involve very different stakeholder responses from one culture to the other. The use of both an emic and etic approach could benefit the quality of the research insights. One example would be to do a quantitative study to capture the etic explanations for acts of vandalism. The study could be extended

to a qualitative analysis of the seriousness of the vandalism as a problem and the desired

levels of participation in initiatives to address vandalism in each culture that are targeted

for the comparative study. The combination of the emic and etic approaches avoids the

research from being influenced by a dominant culture and allows for in-depth study on

cultural characteristics (Lung-Tan, 2012). Table 2.4 details the advantages and

disadvantages of emic and etic approaches and the possible synergy of the combined

approach.

Table 2.4 *Advantages and disadvantages of emic and etic research approach*

Emic approach		Etic approach	
Advantages	Disadvantages	Advantages	Disadvantage
Understand their point of view of other cultures	Difficult to come to generalised conclusions due to variations between cultures	Allows for a cross-cultural comparisons and generalisations	Difficult to establish equivalence for cross-cultural comparisons
To identify deeper meanings and at insights into perspectives, attitudes, and behaviours within a culture	Translation error from participants to researcher; there is a presence of subjective bias	Key concepts that make specific objectives are selected by the researcher	Differences in relative importance given to concepts between the researcher and the participants
To produce deep, rich, and meaningful knowledge via qualitative research	Resource-intensive (time, money, planning) approach	Scope for scalable to multiple cultures; in one study	Culture components are treated as independent variable, instead of a system

Source: http://isites.harvard.edu/icb/icb.do?keyword=qualitative&pageid=icb.page340911

In this study, an imposed etic research approach is adopted under the literature

review section and the physical audit study. After that, the emic approach will be adopted

to evaluate stakeholder responses to vandalism. The community survey study and site

managers / government officers study adopts principally an emic approach to approach

the specific research questions. Finally, a derived etic approach will be employed in the final chapter to conclude this thesis. Figure 2.5 explains the research procedure in detail.

Imposed etic approach
Purpose: to establish concept of vandalism in tropical Asian context and to identify research opportunities for the specific study

Methods: physical audit and literature review

Emic approach
Purpose: to gain stakeholder perspectives on their responses to vandalism at visitor attractions.

Methods: a questionnaire based survey of the local community and in-depth interviews of site managers and government officials.

Derived etic approach
Purpose: to identify theoretical and practical implications of the thesis

Methods: comparative summary

Figure 2.5. The integration of the etic and emic perspectives in this thesis

2.6.2 Mixed methods

The 'paradigm wars' debate on the superiority of quantitative methodology over qualitative methodology seems to be at an end in favour of mixed method research (Williams & Vogt, 2011; Yin, 2011). The mixed methods research option takes advantage of the similarities and differences in quantitative and qualitative methods. The use of mixed methods has been acknowledged and widely accepted in several research fields for some time (Bala et al., 2012; Tashakkori & Teddlie, 2010; Yin, 2011). A key

factor to consider in the design of mixed methods is the complementarity of the techniques. An effective technique to arrive at the most efficient combination of methods is to select the best method for the task in hand. Putting research aims above the mechanical use of procedures should guide the researcher to pay attention to the trustworthiness and credibility of the research (Williams & Vogt, 2011). The selected methods should consider exhaustive searches for evidence and contrary evidence in a transparent way.

This thesis combines quantitative and qualitative methods to achieve the overarching aims specified in section 2.8. The first research study uses observation-based physical audit (quantitative) method to record acts of property damage and to analyse properties of physical setting of the attraction to ascertain seriousness of vandalism / property damage at visitor attractions in Singapore and Bangkok. Cluster analysis was employed to group sites based on extent of on-site vandalism and effectiveness of site management in implementing intervention. The second study employed a questionnaire-based survey (quantitative) method to know local community attitudes and responses to vandalism. Several statistical techniques were employed to analyse the findings. The third and final study used interview (qualitative) method to engage site managers and government officials responsible for the operation and upkeep of the attractions. Content analysis using the Leximancer software tool is employed to identify primary themes in stakeholder attitudes and engagement with other stakeholders in responding to property damage. The synergy arising for the mixed methods approach arguably contributes to the quality of the theoretical and managerial implications of the study. The following

discussion on comparative study approach operationalises the adoption of the etic and emic perspectives in this thesis.

2.6.3 Comparative study approach

The tourism industry operates in a diverse environment in terms of the needs of the visitors to an attraction and the proprieties of the attraction stakeholders. An international and cross-cultural comparative perspective is useful in developing management strategies to cope with unfamiliar situation and people. Sensitivity to cultural differences will facilitate the process of soliciting desired visitor behaviours while visiting attractions (Li, 2014; Reisinger & Turner, 2003).

The growth in the tourism sector has been accompanied by the rise of tourism research. The patterns of tourism growth, the triggers behind the growth and the impact of tourism on the local community are well researched but these has been little examination from an international comparative perspective. The limited cross-border research is focused on the global spread of tourism firms (Pearce, 2014). This thesis addresses the gap in the international comparative research in tourism (Pearce, 2004; Dann, 2011).

A range of international research topics could be pursued in the vandalism area. The work could follow the example of the tourist area life cycle studies which draw on a range of international examples and cases. A collaborative study involving research teams from two or more countries is another example of international study. This research project involves analysis of data from two countries located in tropical Asia (Pearce, 2014). The adopted approach of comparing stakeholder attitudes and responses

to vandalism in different setting (countries) contributes to the greater understanding of international tourism (Li, 2014).

Pearce and Butler (1993) underlined the contribution of the comparative study technique to the future of tourism in making generalisations, building theories, and testing the application of new approaches. The tourism research field can benefit from the comparative analysis by establishing more clearly the issues of context and causes, as well as improving the current knowledge base and offering insights into specific issues or practical problems.

The main reasons for conducting an international comparative study between property damage at visitor attractions in Singapore and Bangkok can be summarised as follows. The first study focuses on the tourism-linked popularity of two key Asian tourist destination. Secondly, the socio-cultural background of the local communities and other stakeholders vary significantly across the two locations. Thirdly, there is a high concentration of natural and man-made visitor attractions in Singapore and Bangkok. The similar nature and scope of these visitor attractions offer comparable perspectives for this research study. Finally, the comparative study methodology is methodology best suited to achieving the objectives of this thesis. According to Lonner and Berry (1986, p. 7), 'a truly international approach to the study of behavioural, social and cultural variables can be done only within such a mythological framework'. The following section describes the research design in detail.

2.7 AN OVERVIEW OF RESEARCH DESIGN

The following material provides a preliminary summary of the research design employed to assess the stated research aims. The detailed justification of these approaches, sampling issues, and procedures accompany each research study; that is, chapters 3, 4, and 5. The methods will be discussed in more detail as the core studies are presented in the body of the thesis.

2.7.1 Study 1: Physical audit

Chapter 3 involves performing a *physical audit* of selected tourist sites. The 'ground-zero' situational analysis involves a participant observation based physical audit of eleven tourism-related sites in each Singapore and Bangkok *(*Jennings, 2010). The two locations were chosen, keeping the following parameters in mind:

Located in the tropics

Popular tourist destinations in Asia

Public and private interest in tourism

The eleven sites of each destination were selected on the basis of *quota sampling* technique (Jennings, 2010) with due consideration to the following factors:

Private and public ownership

Open versus restricted access

Wide based to special interest

The twenty-two research sites represent urban tourism stakeholders who can effect and are affected by practices of sustainable tourism. The selected sample consisted of sites owned or managed by private or government bodies. Some sites were characterised by open access such as city centre or a public beach. Another set of sites

had limited access such as hotels or restaurants, while the final set of sites was drawn from special interests such as theme parks and places of worship to esplanades. The latter category typically attracts a wide range of patrons. The audit employed a schema based on Newman's typology. The research study examined were presented and analysed under broad sections of territoriality, surveillance, access control, activity support, image/management, and target hardening (David, Greg, & Paul Michael, 2005; Newman, 1972a). A collection of photographs and written narratives were employed as primary tools to record the information.

2.7.2 Study 2: Community survey

The study in chapter 4 recorded community perceptions of vandalism, its impact and effectiveness of responses. In this stage, a survey questionnaire was employed to collect comparable and quantifiable data in two cities from a sample of 393 respondents. The interviewer-completed or self-completion, on-site questionnaire was developed to uncover perceptions related to tourist vandalism, intervention strategies to curb vandalism, effectiveness of these strategies, as well as impediments in implementing sustainable projects in urban destinations. *Multistage cluster sampling* was used to arrive at a research design involving on-site survey of adult residents, residing within a *one-*kilometre radius of tourist sites audited earlier in chapter 3 using random sampling (Bernard, 2013).

The data were analysed using statistical tools of Excel and SPSS, guided by theories and concepts in tourism to validate findings and to comment on the effectiveness of responses in sustaining tourism practices.

2.7.3 Study 3: Structured interviews

In-depth structured interviews of management representatives from select sites and relevant government agencies to record their experiences and responses to perceived acts of vandalism form the fifth chapter of this study. The aim is to obtain detailed input from interviews conducted among decision makers in the tourism industry. Interviewees included top management, including chief executive officers or senior management of organisations, heads of strategic business units responsible for tourism planning, development, and/or policy-making, and selected members of the top management teams in each business unit (including government authorities) who are involved in economic development or strategy formulation activities. During the interviews, and following the basic strategy of snowballing, respondents were asked to identify other stakeholders who are considered to have relevant characteristics and valuable information regarding the purposes of the study (Berg, 2004).

The data collected from the interviews were analysed with the help of Leximancer text analytics software (4.0 edition). Leximancer is a relatively new method for transforming lexical co-occurrence information from natural language into semantic patterns in an unsupervised manner (Wu, Wall, & Pearce, 2014). The software aims to assist in analysing the text "from words to meanings and insights" (Leximancer, 2013, p. 1). It codes the data to reduce text collections to categories called concepts. In Leximancer, the expression 'concept' is a synthesis of a text representation. It is built on keywords, synonyms, and stems. A Concept represents something meaningful rather than simply being the repetition of conjunctions and definite and indefinite articles. Concepts and their relationship form the foundations for extracting meaning from text. A

collection of concepts is displayed on a graphical map in the form of coloured

representative circles called themes. The combination of themes and related concepts

assist in analysing the texts from words to meanings and insights.

A pilot study comprising of interviews and survey in Singapore was carried out to

measure the reliability and validity of the instruments, as well as suitability of the

measures for analysis (Jennings, 2010). Figure 2.6 below links the conceptual framework

with the methods adopted in this project.
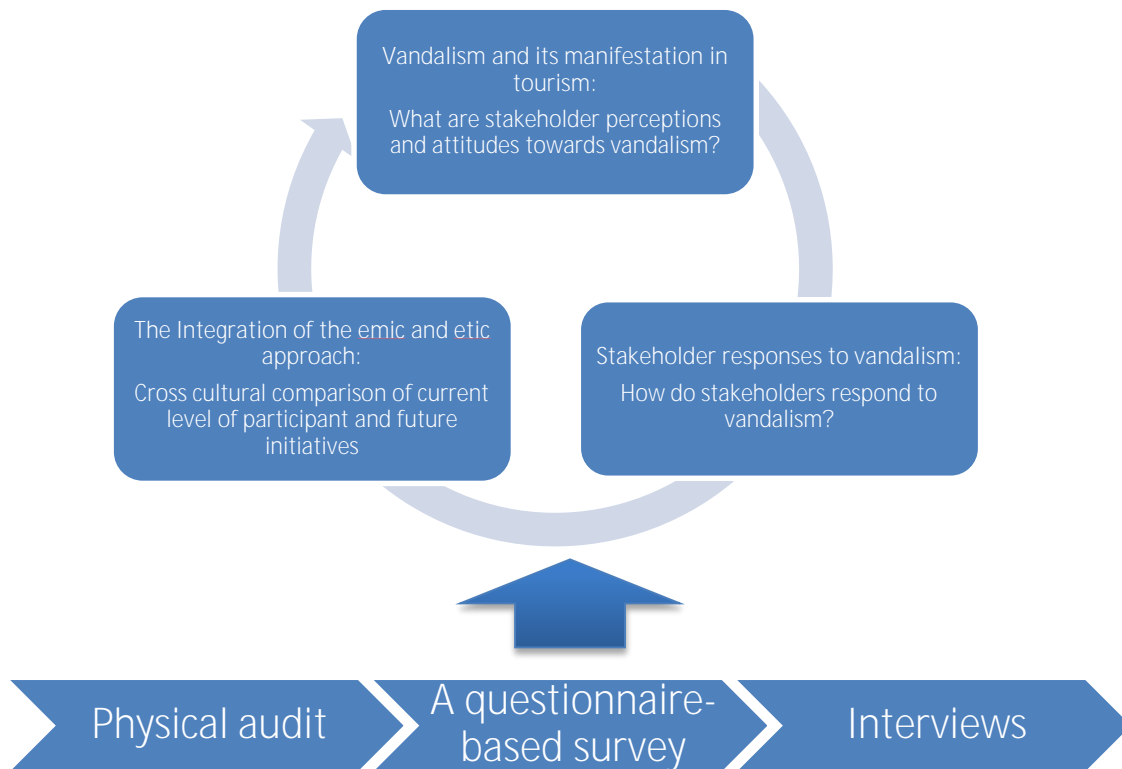
Figure 2.6. The links between methods and the conceptual scheme

In summary, this thesis employs a mixed method approach utilizing aspects from

both quantitative and qualitative methodology to address the research aims (Jennings,

2010). The aims of the thesis are identified in section 5 in this chapter. The research

design includes a range of research techniques such as quantitative tools of observation-

based research and a questionnaire survey as well as in-depth semi-structured interviews as a qualitative instrument. Primary research methods included a questionnaire-based survey, semi-structured interviews, and covert participant observation. Secondary sources in existing academic literature were discussed to link existing knowledge to research findings. Quantitative tools, such as 'Statistical Package for Social Sciences' (SPSS) software, were employed to analyse and interpret data collected. The analysis of comparative data collected from two tropical tourism destinations led to findings and conclusions.

2.8 OVERALL RESEARCH QUESTION AND AIMS OF THE THESIS

On the basis of the literature review, current gaps in the literature, and the research opportunities identified above, this thesis is interested in examining the following research question:

> *How do stakeholders respond to vandalism at visitor attractions in Singapore and Bangkok?*

The research question has been specified into the four related sub-themes. First is the consideration of the nature and extent of vandalism at visitor attractions in Singapore and Bangkok. Secondly, the community, site manager, and government officer responses to vandalism are evaluated. Thirdly, the stakeholder attitudes and perceptions towards vandalism are analysed. And finally, the stakeholders' preferred involvement in vandalism prevention in future is examined. The research questions will be addressed in both Singapore and Bangkok.

Building on the specified research question sub-themes, the research aims are set out as follows:

Aim 1: To extend and explore the application of vandalism by visitors at visitor attractions in a tropical Asian (non-Western) context.

Aim 2: To examine stakeholder responses and their effectiveness in addressing vandalism.

Aim 3: To evaluate whether there are distinctive stakeholder sub-groups holding different attitudes towards vandalism and its prevention.

Aim 4: To compare stakeholder attitudes and perceptions towards vandalism and its prevention in future across two culturally, economically, and socially divergent but popular tourism destination in Asia.

Aim 5: To identify best practices in vandalism prevention and future research direction in the context of sustainable tourism practices.

The aims of the thesis will be achieved in research chapters (refer to Table 2.5 for details). The chapters will develop a set of research questions driven by the overarching thesis aims. The aims specified in this chapter will be now tackled in the following chapters. Specifically,

Table 2.5 *Thesis aims addressed in research studies in the thesis*

Research Aim	Physical Audit	Community Survey	Stakeholder Interviews
One	Yes	Yes	Yes
Two	Yes	Yes	Yes
Three	-	Yes	Yes
Four	-	Yes	Yes
Five	Yes	Yes	Yes

2.9 CONCLUSION

This chapter has prepared the background and the conceptual framework for the research studies in this thesis. The thesis documents the incidence of tourist vandalism and measures stakeholder responses to curb tourist vandalism. The study involves stakeholders such as managers of tourist sites, local government officials, and the community hosting tourists to provide a comprehensive perspective. The nature of

stakeholder response to vandalism and its effectiveness may not be consistent across countries. Thus, this research project employed a comparative study approach to present and analyse research findings in two popular South-East Asian tropical tourist destinations.

CHAPTER 3

FOUNDATION STUDIES: PHYSICAL AUDIT

3.1 INTRODUCTION
    3.1.1   Aims of the foundation study: Physical audit
3.2 METHODOLOGY
    3.2.1   Methodology to select visitor attraction sites
    3.2.2   Physical audit procedure
    3.2.3   Physical audit instrument design
    3.2.4   Reliability of the audit instrument coding
    3.2.5   Pilot study
    3.2.6   Inter rater reliability
    3.2.7   Cluster analysis
    3.2.8   Use of photographs
3.3 RESULTS
    3.3.1   Summary of visitor attraction sites in Bangkok
    3.3.2   Summary of visitor attraction sites in Singapore
    3.3.3   Cluster analysis
        3.3.3.1 *Commonality of clusters*
        3.3.3.2 *Cluster description*
3.4 DISCUSSION
3.5 CONCLUSION

3.1 INTRODUCTION

As explained in the previous chapter, this thesis consists of three component

studies, described in Table 3.1, to evaluate property damage by visitors and stakeholder

responses to that issue at tourist sites. The present chapter describes and interprets results

from the first research exercise of conducting a physical audit at the attraction sites. This

work advances thesis aims 1, 2, and 5 from chapter 2.

Table 3.1 *Research studies in the thesis*

Research tools	Research methodology	Sample
Physical audit	On-site observation	22 tourist sites in Singapore and Bangkok selected on the basis of quota sampling
Community Survey	On-site self-completed survey	600 respondents selected on the basis of multi-stage cluster sampling
Stakeholder Interview	In-depth semi-structured	Managers, owners of attractions identified earlier, and the government bodies responsible for tourist sites

The purpose of the physical audit of a sample of tourist sites in Singapore and Bangkok was to provide the foundation understanding of (1) site characteristics of physical design, (2) site management, and the (3) nature of property damage. The physical audit of the attraction sites employed a covert participant observation technique that involves the direct observation of phenomena in their natural setting (Lincoln et al., 2011). 'Covert observation is a particular type of participant observation in which the identity of the researcher, the nature of the research project, and the fact that participants are being observed are concealed from those who are being studied. Investigators using covert observation adopt the research role of complete participant' (McKechnie, 2008, p. 133).

The purpose of the audit was to note evidence of damage and repair of attraction property. The second objective was to record site characteristics of physical design and site management. Woods and Moscardo (2003) argue that use of on-site observational checklists to study acts and behaviours of visitors is an effective means of obtaining additional quantitative and qualitative information. The audit takes the form of a record of observation of physical properties of the sites, actual signs and evidences of vandalism, and the efforts towards restoration, repair, and general site management. The

audit instrument in the form of detailed check-sheet was constructed to create an inventory of items that relate to the properties of the setting and the observable outcomes classified as acts of vandalism at tourist sites.

The audit check-sheet was employed to assess and evaluate properties of the physical setting at each attraction, such as territoriality, surveillance, access control, target hardening, activity support, image/management, and stakeholder participation. The site characteristics in the check-sheet were further sub-divided into 'site design' characteristics (territoriality, surveillance, access control, and target hardening) and 'site management' characteristics (activity support, maintenance, and stakeholder participation) (Cozens, Saville, & Hillier, 2005). The other objective of the audit was to record evidence of property damage and to prepare taxonomy of vandalism based on observable outcomes. These outcomes range from irreversible (breaking and defacing) to reversible (litter and misuse of facilities), immediate impact (graffiti) to delayed impact (environment degradation), and easy to record (carving on surfaces) to, difficult to record (damage to marine/natural environment) (Pizam, 1999; Tynon & Chavez, 2006a). The audit instrument also had a section on surrounding land use. The information on adjacent land usage was required for the second study in the thesis.

3.1.1 Aims of the foundation study: Physical audit

The aims of this chapter are derived from the thesis aim 1, 2, and 5.

> Aim 1: To extend and explore the application of vandalism by visitors at visitor attractions in a tropical Asian (non-Western) context.

> Aim 2: To examine stakeholder responses and their effectiveness in addressing vandalism.

> Aim 5: To identify best practices in vandalism prevention and future research direction in the context of sustainable tourism practices.

The specific sub-aims of the chapter are as follows:

To record properties of the setting to arrive at a comprehensive map of signs/acts of vandalism and the attributes in the physical environment affecting visitor behaviours. This sub-aim is liked with aims 1 and 2 and will be achieved by personal observations of as-it-happens acts and completing the physical audit schema.

To obtain wider information on-site management functions such as repair and maintenance, territoriality, and surveillance. This particular sub-aim is related to thesis aim 2 and will be achieved by personal observation and completing the audit schema.

To assess the extent and nature of property damage at the site. This sub-aim is related to thesis aims 2 and 5 and it will be approached by personal observation and photographic evidence during the physical audit.

Finally, to view the outcomes of the vandalism prevention and control by identifying sites with common characteristics. This core aim provides systematic information for further investigation. The sub-aim will be achieved by classifying sites

into clusters and profiling clusters. This aim is highly relevant to thesis aim 5. Findings from personal observations and photographic evidence will be used to achieve this aim.

3.2 METHODOLOGY

This section outlines the methodology adopted to the selection of the attraction sites for research fieldwork for this study ad thesis, construction of the audit instrument, and conducting the physical audit. Figure 3.1 summarises the steps involved in conducting the physical audit in study 1. Eleven visitor attraction sites were selected in Singapore and Bangkok, respectively, to provide primary data for a comparative study. Fieldwork for the physical audit study in chapter three, community survey in chapter four, and stakeholder interviews in chapter five were all carried out at the twenty-two sites identified in the next section.

The site selection section is followed by the methodological consideration of the physical audit procedure, audit instrument design, instrument reliability, and reporting of the pilot study.

Pre-Physical Audit Preparation

- Review of relevant literature
- JCU Human Ethics approval for the study
- Approval from national Research Council of Thailand to conduct the study
- Develop a list of properties of site characteristics
- Selection of sites for the physical audit
- Preparation of draft audit check-sheet and information sheet

Consultation with Academics and Discipline Experts

- Discuss list of properties item with Tourism researchers with Tourism industry representatives
- Tourism researchers reviewed wording and sequencing of audit check-sheet sections
- Finalize inter-rater reliability analysis process
- Visit potential study sites with another rater

Pilot Study

- Ensure procedures are being followed
- Principal researcher and research assistant collect on-site data for inter-rater reliability
- Discuss issues/problems in audit data collection

Revision and Review of the Final Audit Check Sheet and Process

- Tourism researchers reviewed pilot study process and findings
- Incorporate suggestions
- Audit process and check-sheet revised as per suggestions
- Principal researcher and research assistant establish inter-rater reliability score of 75%

Visit Field Study Sites

- Ensure audit procedures are being followed correctly
- Principal researcher and research assistant collect on-site data
- Discuss issues/problems
- Compile audit check-sheets
- Singapore data collection was followed by on-site data collection in Bangkok

Complete Physical Audit at Each Site in Singapore and Bangkok

Figure 3.1. Steps involved in conducting study one

3.2.1 Methodology to select visitor attraction sites

The data collection for the studies was carried out at carefully selected visitor attractions (sites) in Singapore and Bangkok. The relevance of the sites was extremely important as this thesis is based on findings at these attractions. The following section outlines the detailed steps adopted to select the sites for fieldwork in the thesis.

The survey of the existing literature identified several typologies to classify attractions. The studies referred to for this research were, in chronological order, Lew (1987); Inskeep (1991); Hetherington et al. (1993); (Gunn, 1997); Pearce, Benckendorff, & Johnstone (Faulkner, Moscardo, & Laws, 2001); Swarbrooke (2002); (Boniface & Cooper, 2005); Pearce and Benckendorff (2006); Weaver and Lawton (2006); and Morgan and Messenger (2009). The common theme underlying the various typologies is the separation between the natural versus cultural underpinning of the site characteristics. The other distinction was the permanent or temporary nature of the attraction. The focus of this project is permanent attraction sites.

According to Veal (2006), the sample selection in a social science study should be based on two criteria: (1) an exhaustive sample to ensure fair representation of the population and (2) an adequate sample to achieve the objectives of the study. A sample of attractions based on Swarbrooke's categories of natural and man-made attractions fulfilled the first objective of being exhaustive in nature. The further sub-divisions of the two macro-level categories into 'not built as an attraction' and 'purpose built to attract visitors' enabled clear distinction in the nature of attraction and the tourism development processes, thus fulfilling the second criterion. In this study, the 'events' category is

omitted due to the difficulty in recording physical evidences of property damage at these temporary sites. Finding a comparable event in both locations was another constraint.

Once the categories were established, the next step was to identify the types of activities visitors selected in urban tropical tourism destinations such as Singapore or Bangkok. The emphasis on visitor-activity produces an opportunity to study the behavioural aspects such as motivation and helps explore the role of the environmental setting in promoting or discouraging visitor behaviours (Pearce & Benckendorff, 2006). An activity-based approach has advantages in further differentiating attraction types for detailed analysis (Morgan & Messenger, 2009). The categories of attractions and the type of visitor activity at these attractions are summarised in Table 3.2 below.

Table 3.2 *Categories of attractions and type of visitor activity*

Category	Type of activity
Natural	Visit nature reserve / marine reserve
	Swimming and water sports
Human made not as an attraction	Visiting scenic landmark
	Excursion tour to city centre
	Visit place of worship
	Tour local community/market
Human made purpose built as an attraction	Experience night-time entertainment
	Shopping
	Visit amusement/theme park
	Visit galleries/museum
	Visit national park / wildlife conserve

The preceding steps build a conceptual framework to select the sites for the study.

The next step was to identify popular visitor attractions in Singapore and Bangkok. The process began by classifying a site as a 'visitor attraction' and establishing its popularity with visitors. From the literature review in Chapter 1 and 2 it was established that an 'attraction is a named site with a specific human or natural feature which is the focus of visitor and management attention' (Pearce, 1991, p. 46). Similar understanding of attractions were cited in works of (Faulkner et al., 2001; Morgan & Messenger, 2009; Swarbrooke, 2002). Each of the nominated sites for the study demonstrated a human or natural feature and were a focus of visitor and management attention.

Secondly, in order to establish the popularity of the sites, publicly available website sources making recommendation to visitors were identified. Four kinds of sources were identified: the official source of tourism-related information, the popular tourism reference books, popular regional travel website, and popular global travel web sources. A website for each type of source was selected for Singapore and Bangkok, respectively. Table 3.3 lists the web sources employed to identify the sites for the study.

Table 3.3 *Online sources referred to while selecting visitor attraction sites*

Website characteristics	Singapore selection	Bangkok selection
Official tourism information of the state	Singapore Tourism Board (www.stb.gov.sg)	Tourism Authority of Thailand (www.tourismthailand.org)
Popular tourism reference	Lonely Planet Singapore (www.lonelyplanet.com/Singapore)	Lonely Planet Thailand (www.lonelyplanet.com/thailand)
Popular regional travel website	www.Zuji.com.sg	www.Sawadee.com
Popular global travel web source	www.Tripadvisor.com/destination	www.Tripadvisor.com/destination

Thus, the selected site had to represent the following features:

- Attract visitors and offer a specific 'type of activity' as listed in table 3.2 above.

- Meet the previously stated criterion of an attraction and should be recommended as a visitor attraction by popular and reliable web sources.

- Be recommended by all the *four* sources as a popular visitor attraction to be eligible for selection.

Table 3.4 identifies the sites that were carefully selected with due consideration to the qualification criteria. Appendix A illustrates the detailed site qualification process.

Table 3.4 *List of visitor attraction sites in Singapore and Bangkok*

Category	Type of activity	Singapore	Bangkok
Natural	Visit nature reserve / Marine reserve	Botanical Garden	Lumpini Park
	Water sports	Sentosa Beach (Siloso)	Chao Pharaya River
Human made not as an attraction	Visiting scenic landmark	Marina Bay precinct	Grand Palace
	Excursion tour to city centre	Orchard Road	Prathumwan City Area
	Visit place of worship	Sri Marriamma Temple	Temple of Reclining Buddha
	Tour local community/market	Chinatown	Chinatown
Human made purpose built as an attraction	Sample local food / dining out	Clark Quay	Khaosan Road
	Shopping	Takashimaya Mall	Siam Paragon
	Visit amusement/theme park	Wild Wild Wet	Siam Park City
	Visit galleries/museum	Asian Civilization Museum	Jim Thompson House Museum
	Visit national park / wildlife conserve	Singapore Zoo	Dusit Zoo

An important step in the exercise was to ensure comparability of attractions (sites) in Singapore and Bangkok to arrive at comparable data for analysis. The attractions identified in Table 3.4 are compared on relevant parameters to ensure, first, the relevance

of the sites to the study and, second, to ascertain comparability of the attractions. The sites should meet certain criteria such as easily accessible to ensure higher chances of tourist visitation. The sites should exhibit coverage of different ownership/guardianship patterns in order to study the stakeholder responses. Thus, the five parameters, as follows, were identified to establish the comparability of the visitor attraction in Bangkok and Singapore. One attraction for each type of activity was identified at every location. The five parameters of site comparability are outlined below.

- Within the city (municipal) limits

- Accessible by public transport

- Comparable in scope of operations

- Opportunity to collect data within the ethics approval guidelines

- Comparable in ownership/guardianship.

Table A3 in appendix A presents the comparability of the selected sites/visitor attractions. The final selection of sites (attractions) in Table 3.4 was viewed as appropriate to achieve the objectives of the research to study property damage by visitors at tropical tourism destinations and to record the stakeholder responses to vandalism and to manage visitor behaviours. The selected sites represent an exhaustive coverage of attraction categories and a saturation sample of 'visitor activity–based' views of attractions. The robust selection process is based on recommendations to visitors by popular and reliable sources and it ensures comparability of attractions in Singapore and Bangkok for the purposes of the thesis. Figures 3.2 and 3.3 provide a visual presentation of the location of research sites on maps for Singapore and Bangkok, respectively. A sample of the research sites is marked on the map to provide an overview of the

comprehensive coverage of the geographical spread of the two locations. Secondly, too

many sites will clutter the map. These maps are accessed from the

www.maps.google.com website.
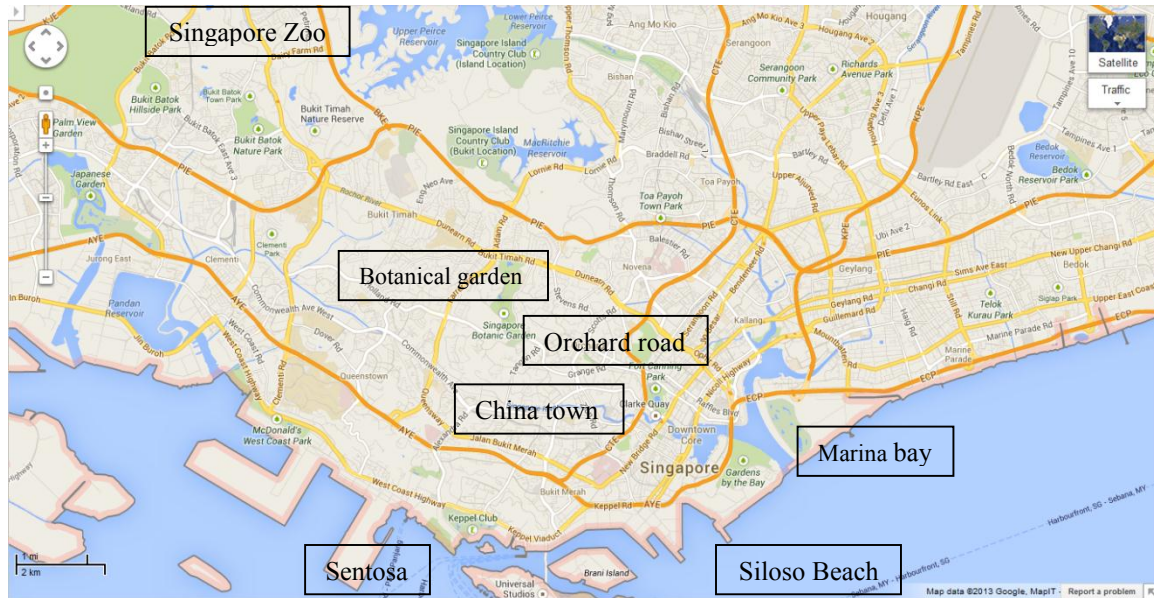
Source: Google maps

Figure 3.2. Location of research sites on the Singapore map

Source: Google maps

Figure 3.3. Location of research sites on the Bangkok map

3.2.2 Construction of audit check-sheet for the physical audit

It is impractical to observe and record all properties and characteristics in a setting. The audit tool developed for this study focuses on the model based on properties-attributes-elements relevant to the study aims. The study presents the first reported attempt to develop a comprehensive instrument to measure the potentially important environmental factors that influence the extent of vandalism at a tourist attraction. The model (refer to Table 3.5) consists of *properties* (defined as the overall factors that summarise the site environment), *attributes* that influence each of those *properties* (those factors that form the components of *properties*), and *elements* that influence the *attributes* (factors that have the potential to be changed to improve an *attribute*). The next section outlines the site properties.

The site properties are classified into two categories: site design and site management. The site design properties were territoriality, surveillance, and access control. The site management properties were, namely, activity support, image/maintenance, target hardening, and stakeholder participation. The surrounding land use was also captured as an additional site property. This measurement was included to determine a better understanding of tourist activities and interests within the immediate vicinity of the site. On-site comments and interpretations by the audit team were made for each category and sub-category. The validity of the recordings was strengthened by collecting visual evidence and 'as-it-happens accounts' captured in pictures, video recordings, voice recording, and narratives. Two auditors were used to complete the audit checklists to avoid rater bias. Using observation as the primary tool, two auditors

working together recorded observations related to various properties of the setting (sites). The inter-rater reliability of their efforts is documented in a subsequent section.

The final section of the audit recorded observable outcomes of property damage under the typology of acts of vandalism. The observable outcomes ranged from graffiti, carvings, damage to artefacts, litter, pollution, damage to natural and marine environments, and abuse of tourist infrastructure. The detailed observation included a judgment of the on-site presence of evidence of property damage and identification of the actual location as part of the findings. An accompanying section with interpretations and narratives provides additional description as appropriate.

Table 3.5 *Typology of properties, attributes, and elements in physical audit*

Properties	Attributes	Elements
Territoriality	Symbolic barriers	Signage
		Landscaping
		Pavement
	Real barriers	Fence
		Wall
Surveillance	Informal	Facility design
		Self-surveillance
		Windows
		Visibility
	Natural	Open layout
		Lighting (natural)
	Formal/Organised	CCTV
		Security guard
		Volunteers
		Lighting (mechanical)
Access Control	Informal measures	Physical design
		Landscaping
	Natural elements	Water body
		Wooded area
	Formal/Organised	Gate
		Entry/Exit
		Security guard
	Mechanical	Automated gantry
Activity Support	Safe activities	Signage
		Suggested itinerary
		Litter bins
		Sitting area
	Unsafe activities	Signage
		Public announcements
		Security guard

Image/Management	Positive image	Clean Functional
	Routine maintenance	Cleaning of bins Cleaning of toilets Maintenance of gardens Routine cleaning of
	Rapid repair and	Repair of damage Clearing graffiti/carving Restoration of attractions Repair of signage
Target Hardening		Adequate surveillance Secluded areas Presence of vandalism Visibility of the
Stakeholder	Active participation	Site management Establishments with the site Local government Voluntary organisations/ General community
Surrounding land		Commercial property Residential property Public facilities Landscaping features Civic amenities Others
Observable		Damage to artefacts Litter, graffiti, and carving Property damage Damage to environment Misuse of tourism

3.2.3 Physical audit instrument design

The audit instrument draws on the early foundation work of defensible spaces by Newman (1972a) and Cohen (1973) and their explanations of vandalism. The perspectives are based on the premise that deviant behaviour can be influenced by opportunity and may not always be planned a long time in advance. The discourse on crime prevention through environment design (CPTED) in the works of (Cozens et al., 2005) and (Ekblom, 2011b) was also influential in assessing the properties of the physical setting. The CPTED concept is based on crime-prevention studies (Lynch, 1960; Jacobs, 1961; Angel, 1968; Jeffery, 1971; Newman, 1973; Gardiner, 1978; Clarke & Mayhew, 1980; Poyner, 1983; Coleman, 1985; Cozens, 2001; Cozens, 2005; and Ekblom, 2011).

As a point of summary, Crowe explains that 'the proper design and effective use of the built environment can lead to a reduction in the fear and incidence of crime, and an improvement in the quality of life' (2000, p. 46).

The theoretical frameworks introduced above propose that specific features of a setting can discourage offenders and deviant behaviours. Clearly defined boundaries result in a sense of ownership and differentiate public and private spaces. The opportunities for informal and formal surveillance, managed access, cues for expected behaviours, and a positive 'image' of the physical setting can discourage offenders. Perpetrators who are visible to others and perceive a higher risk of observation and subsequent apprehension may limit anti-social behaviours. Further, a well-maintained environment signifies a sense of 'ownership' within the community and other primary stakeholders, thus encourage active involvement in initiatives to address vandalism. The surrounding land use affects the image of the setting and shape behaviours.

Drawing on the above discussion, the audit instrument included territoriality, surveillance, access control, activity support, target hardening, image/management, stakeholder participation, and surrounding land use as the main properties of the setting of the attraction concerned. The final component recorded observable signs and acts of vandalism. The following section presents a discussion of the importance and appropriateness of the various properties in the audit schema.

Territoriality: Newman (1972a) in *Defensible Spaces* emphasised the importance of 'sense of belongingness' and 'ownership' of the environment. Clearly defined boundaries of public, semi-public, semi-private, and private space provide perception of control and thus influence behaviours within the environment. Different forms of

territorial cues include symbolic barriers (signage, both verbal and non-verbal) and real

barriers (barricades, marked walkways). Several studies have shown the link between

higher levels of territorial claim and low crime rate (Devlin & Brown, 2003; Glasson &

Cozens, 2011; Reynald, 2013). Closely linked to territoriality is the opportunity to

provide surveillance.

Surveillance: The opportunity to provide guardianship by a property owner

determines levels of surveillance. Informal elements (e.g., open facility design, windows)

provide a natural self-surveillance opportunity to visitors and employees of the attraction.

Formal organised surveillance elements (e.g., site guards) show involvement of guardians

and stakeholders. In addition, technological progress has provided mechanical elements

in the form of CCTV cameras and artificial lighting to enhance possible levels of

surveillance.

Certain features of the physical setting such as adequate illumination in the

physical setting and reduced visibility due to corners/bends influence possible levels of

surveillance. The perception of surveillance is a deterrent in itself, limiting deviant

behaviour in advance. An individual's perception of being watched, such as the feeling of

being monitored by guards or CCTV camera, affects behaviour and encourages desired

behaviours (Ekblom, 2011c).

Access control: This concept focused on reducing the opportunity of open access

in an environment and the resultant increase in the perception of risk for offenders.

Access control includes the access to the attraction from outside and access to the

artefacts within the attraction. A survey of the literature reveal that access control

mechanics include informal measures (physical design and landscaping elements), natural

element (waterfront), formal/organised (entry points and exit nodes), and mechanical

tools (automated gantry, security codes). The concept can be expanded to include

additional elements limiting access to artefacts and features within the attraction. These

are classified as organised access control measures in the study. Measures in form of

railings, tampered-proof clear glass / plastic panels, and display cabinets limit open access

to visitors (Clancey et al., 2012; CPTED Committee, 2000; Leanne, 2011; Reynald,

2011b). Further, some measures such as natural and mechanical access control are more

effective in limiting entry into the attraction, while informal and organised elements are

more relevant within the attraction. Studies by Newman (1976,1996) and others

(Albrecht & Das, 2011; Buckley, R. C., 2010; Shaw & Williams, 2004) have indicated an

association between increased access control and lower level of property damage.

Activity support: Moving away from the definitive elements in the physical

design, the concept of activity support is tailored for the purpose of this study as a set of

elements motivating visitors to be safe or avoid unsafe activities. The above view is

supported by Ekblom's framework for mobilising preventers, wherein activity support is

explained as 'a property of the environment, activity support variously alerts, informs,

motivates, empowers and directs' (2011a, p. 21). The elements in the definition act as

crime preventers as they encourage certain behaviours while discouraging others, thus

reducing the perceived opportunity for deviant behaviour. Further, elements in the

physical setting in the form of signage, facilities, and amenities provide behavioural cues

and encourage safe activities with visitors to an attraction site.

Image/management: In Cozens's words, 'Promoting a positive image and

routinely maintaining the built environment ensures that the physical environment

continues to function effectively and transmits positive signals to all users' (2005, p. 337). As evident from the definition, image, management, and maintenance are the main components of this site feature. The concept of 'image' with its emotional underpinning determines the distinctive appeal of an attraction. It affects the nature of visitors attracted to a site and their intended behaviours. At times stakeholder involvement may be affected by their impression of tolerable visitor behaviours (Ekblom, 2011a; Mair & Mair, 2003).

While maintenance of the facilities and equipment affect the functionality of a site, management, which encompasses maintenance, affects opportunity for crime. The broken windows study (Wilson & Kelling, 1982) emphasises the role of management, while another piece of work links inadequate management practices to crime precipitators (Wortley & Mazerolle, 2012). The opportunity to create a positive image and to ensure rapid repair and maintenance are dependent on the nature of attraction property. A vulnerable property feature is considered as a soft target and is easy to vandalise. The importance of target hardening is discussed next.

Target hardening: As the term suggests, the concept refers to the process of 'hardening' the target, which is making it more difficult for vandals to damage property. The impression of a 'gated community' and the perception of higher levels of difficulty or effort required to damage property can discourage deviant behaviour are features of target hardening (Fyall, 2008). Target hardening should also result in reduced levels of property damage due to failed attempts.

Stakeholder participation: Sustainable tourism development require involvement and collaboration between several partners (Paskaleva-Shapira, 2007). Similarly, sustainability of a visitor attraction mandates collaboration between the main

stakeholders, namely, the site management, the local government, and the immediate community (Timur & Getz, 2008a). Active participation of other stakeholders in establishments within an attraction and the voluntary organisation/non-government organisation's (NGO) role are equally important in ensuring development of sustainable practices. Stakeholder theory has been applied in planning and management in several tourism studies, thus, it is appropriate to include the item in the physical audit in this research project (Jamal & Stronza, 2009; Sheehan & Ritchie, 2005).

Surrounding land use: Discussion on land use in urban areas has attracted some attention in research studies, especially the discourse on environment impact assessment (Doygun & Kuşat Gurun, 2008; Williams & Shaw, 2009). This study is focused on the economic and social implications of land use. The unplanned land use surrounding the nature-based attraction (sites under the natural category and other themed site like the zoo in this thesis) may lead to their degeneration overtime (Getz, 1994; Teye, Sirakaya, & Sönmez, 2002; Weaver & Lawton, 2013). Similarly, conflicting surrounding land use may reduce the attractiveness of an attraction to visitors (McKercher, 1992; Williams, 1998). Information related to surrounding land use is also helpful in other studies related to stakeholder responses to property damage as part of later chapters in this thesis.

Observable outcomes of vandalism: A typology of observable signs, evidence, and 'as-it-happens' acts of property damage in tourist attractions in the form of an inventory is required to assess the extent and nature of vandalism at these sites as well as a comparable measure between Singapore and Bangkok. The record is in the form of categories: damage to artefacts, litter, graffiti and carving, public/private property damage, damage to the environment, and misuse of tourism infrastructure. A typology-

based approach has advantages in further differentiating attraction types for detailed analysis in this research project.

In summary, the physical audit serves as an examination of the tourist attractions in terms of the appraisal of the properties of the physical setting of territoriality, surveillance, access control, activity support, image/management, and target hardening. Related properties of the setting in stakeholder participation, surrounding land use, and observable outcomes of vandalism inform a comprehensive analysis of properties contributing to the phenomenon of property damage and provide an opportunity for innovative tourism research.

The audit instrument is the primary tool for data collection in this study. The instrument provides a comprehensive method to study the properties of the setting, site management practices, and to evidence property damage in the physical setting of the research sites. The instrument included three types of measures. First, a subjective assessment was made that required the observers to record their judgment on a scale as a response category. Such responses were used for information related to the primary attribute of each property listed in Table 3.5. A second response category was an objective assessment related to the elements influencing the attributes of overarching properties. The third and final response category required the observer to record narratives of 'as-it-happens' acts of visitors and evidence related to each attribute or element. The audit output in form of a combination of the three types of responses provided a comprehensive inventory of items related to the properties of the setting and evidence based on observations. The assessment of reliability of the instrument (Pikora et al., 2002) is presented in appendix B, which illustrates each property and its components.

That is followed by a brief description component and response categories. The physical audit instrument (check sheet) is provided is Appendix C.

3.2.4 Pilot study

The pilot study was conducted at two public tourist sites—Esplanade Park and Merlion Park in Singapore. Both sites meet the qualification criterion identified earlier in the chapter. Two auditors conducted simultaneous audit for ease of comparison. The two auditors started together from one end of the Esplanade Park at a designated time and made independent recordings. They collected evidence such as video recording, pictures, and voice recordings independently. The auditors agreed to meet at the other end of the park after two hours. Upon completion of the audit of the Esplanade Park, the auditors walked across the Anderson Bridge to arrive at the Merlion Park. The two auditors entered the Merlion Park via the Esplanade Bridge underpass to start making their observations and collection of evidence. The auditors were at the Merlion Park site until dark to ensure coverage of night-time conditions, especially to record the 'lighting' and illumination at the site. The auditors then returned to Esplanade Park to observe similar night-time illumination and lighting at the site.

A similar pilot study was carried out at Pathum Wan area in Bangkok. The comparative analysis assisted in improving observation techniques, using the recording mechanism and amending the framework of the audit schema. For instance, the number of measures for the objective coding was increased from 102 to 104 observations after the pilot study. The finalized audit-sheets were collated for inter-rater reliability test as detailed in a subsequent section.

3.2.5 Reliability of the audit instrument coding

The validity and reliability of the audit instrument is an important step to ensure robustness of the data in achieving the audit objectives (Babbie, 2010; Veal, 2006). The physical audit in this study employed a covert participant observation technique that relied on the recordings by the observers and evidence such as photographs taken by the observers as necessary. Thus, the reliability of the data collected needs to be checked.

In order to ascertain the reliability of the data collection and the physical audit exercise, observations of an independent observer were sampled to establish consistency in observations and interpretations. The independent observer (participant) was briefed about the objectives of the audit and the mechanisms to record data. Both participants visited the pilot attraction site at the same time to conduct the audit. The audit was performed independently and the audit-sheet was completed independently. A sample of sites earmarked for the actual audit was also subjected to similar reliability test. Five sites were chosen randomly for inter-rater reliability test. These were Ngee Ann City (Takashimaya Mall) and Orchard Road feature in Singapore. While the Dusit Zoo, Chao Phraya river, and Siam Paragon mall were selected in Bangkok for the reliability test.

3.2.6 Inter-rater reliability

According to Portney and Watkins (2009), the level of agreement between raters is an approach to measure reliability when the responses are measured on a categorical scale. The proportion of agreement between the raters is the index of agreement in such a case. The chance-related agreement is a limitation of above exercise, which can be corrected using Kappa statistics. This helps in overcoming the level of agreement that could have occurred by chance (Babbie, 2013; Carletta, 1996). Thus, the inter-rater

reliability (IRR) study was conducted using Cohen's Kappa statistics. Audit schemas of Esplanade Park and Merlion Park in Singapore and Pathum Wan in Bangkok from the two observers were used for the inter-rater reliability test. The k indexes 0.74, 0.83, and 0.73 were recorded with a significance level of $p < 0.001$ for the three sites, respectively. The average score after the pilot study was $k = 0.77$. Kappa (k) index above 0.5 is good agreement, while anything above 0.75 is considered to be extremely high level of agreement (Stemler & Tsai, 2008; Sun, 2011). Thus the kappa index $k = 0.77$ for the study signifies a high level of inter-rater reliability.

Similarly, the random sample of five sites from the actual physical audit had the following Kappa (k) index. Siam Paragon $k = 0.67$; Chao Phraya river $k = 0.54$; Orchard Road $k = 0.61$; Ngee Ann City $k = 0.58$; and Dusit Zoo $k = 0.55$. The average score of the five sites was $k = 0.59$ with $p < 0.001$ significance, indicating good inter-rater agreement.

The observations and data for the audit exercise were used to create short narratives for every site audited. The narratives outlined the site characteristics of the physical design, site management practices, and observable sign and acts of vandalism. The quantitative data from the audit-sheets were employed to perform cluster analysis to classify sites into clusters based on site characteristics. The rationale and methodology of cluster analysis is reported in the next section.

3.2.7 Cluster analysis

Factor analysis, cluster analysis, and multi-dimensional scaling are popular techniques to reduce large and complex data to smaller sets that are easier to understand and interpret. Factor analysis is useful in reducing a large number of variables into factors. The objective of factor analysis is to reduce p variables to c factors, where $C < P$. Cluster analysis, on the other hand, is concerned with similarity between objects of comparison. Cluster analysis is a popular technique to group similar cases or to separate cases to form distinct homogenous clusters assisting comparison within the cluster and between clusters (Everitt, Landau, & Leese, 2009).

The objective of cluster analysis is to summarise n cases using k clusters, where $K < N$. Multi-dimensional scaling provides a visual map of objects placed in a multi-dimensional space using two or more dimensions. These dimensions represent the attributes of the object. Multi-dimensional scaling can be more difficult to interpret in comparison to factor analysis as the dimensions are not rotated. Furthermore, the results can be difficult to visualize and interpret with any increase in number of dimensions. All of the three techniques are based on correlation and pattern matching, which is primarily descriptive. Thus, it is the prerogative of the investigator to define the number of categories or groups for analysis. The investigators use their knowledge and general 'rules of thumb' to arrive at the decision (Baggio, & Klobas, 2011; Dwyer, Gill, & Seetaram, 2012). These techniques, especially cluster analysis, all have a role in the analysis of the audit data. The quantitative technique is coupled with a qualitative approach of use of pictures/photographs to describe the clusters.

3.2.8 Use of photographs

Pictures taken at the sites were used as illustrations to provide context to the cluster explanations. The pictures represented visual representation of the properties used in the narratives to explain the sites and the cluster analysis. The use of pictures is a presentational strategy that brings multiple meanings into the foreground. By presenting photographs with a narrative, it treats the pictures as mirror images of the researched sites. The benefit of this approach would be to provide the reader a rich description of the sites/clusters under investigation, as well as to present the photographs as a medium of communication (Schwartz, 1989; Spencer, 2010; Stanczak, 2007). The photographs are used to document elements in the environment and provide shared meaning to cluster description (Ray & Smith, 2012)

3.3 RESULTS

The specific aims of this study are to record properties of the setting to arrive at a comprehensive map of signs/acts of vandalism and the attributes in the physical environment affecting visitor behaviours, to obtain wider information on site management functions, to assess the extent and nature of vandalism at the attraction sites, and to view the outcomes of the vandalism prevention and control by identifying sites with common characteristics.

The physical audit of a sample of tourist sites in Singapore and Bangkok attempts to address and aims by providing foundation understanding of tourist site characteristics of (1) the physical design, (2) site management, and (3) observable sign and acts of vandalism in form of a record of observation of physical properties, actual signs and evidence of vandalism, and the efforts towards restoration and repair.

The material presented consists of two principal approaches to understand the sites. These include qualitative description of the properties of a site in form of narrative and a cluster analysis to appreciate the characteristics of sites considered to be homogenous groups. The summary of sites in Bangkok is followed by the summary of sites in Singapore. The summary of a site includes a narrative of the site characteristics of physical design, site management, and the observable signs and acts of vandalism. The final section outlines the cluster analysis.

3.3.1   Summary of visitor attraction sites in Bangkok

The following section provides a brief description of the physical audit of attractions in Bangkok.

Siam Paragon shopping centre is one of the largest shopping centres in Bangkok located in the Pathum Wan area of the city.

Site characteristics of physical design: *The raised pavement and the road marking around the mall make a symbolic claim while the steps and designated entry/exit points are a real territorial claim. The signage in English and Thai identify where the visitor is. The signs are clearly visible and easy to understand. The property has an open design and provides opportunities for self-surveillance. There are guards at every entrance and exit, but no patrols. The car park entrance has metal detectors. The physical setting is illuminated, and all mechanical lights are operational, ensuring visibility of signs and maps. There is limited use of CCTV cameras. The raised pavement around the mall acts as an informal access control measure, while the designated entrances are formal access mechanisms. The opening hours of the facility are clearly indicated on each entrance. In the absence of natural access control, the security guards with the help of automatic equipment, such as metal detectors and auto-doors, control access. Several sections are without surveillance, making it an easy target to vandalise.*

Site management: *Extensive signage and facilities (litter bins next to the escalators and the toilets) encourage safe activities. The taxi stand together with a PA system outside the shopping centre is managed by the staff. The guards control the traffic flow around the property. The overall impression tends to be positive although there can be improvements such as servicing of the PA system. All toilets have designated attendants to clean the facility periodically. There is a cleaner at every floor to keep the floor clean and litter-free. There are signs of repair as a few walls are repainted. However, there is need of more general repair work. There is active involvement of the site management and the establishments within the mall.*

Observable sign and acts of vandalism: *Presence of graffiti, damage to public facilities, litter, and property damage in general provides evidence of vandalism.*

Wat Po, also known as the Temple of Reclining Buddha, is a very popular tourist attraction.

Site characteristics of physical design: *The footpath all along the outside of the boundary wall leads visitors to the entrance. The inside of the setting is separated by open areas and consists of several temples with designated entrance. The only signage outside informs the opening hours. The non-verbal and verbal signage inside the compound in English and Thai language is clearly visible and easy to understand. The open design facilitates self-surveillance, but the temples have secluded corners and alleyways. There are guards outside the main temples and in the foyer. The lighting is unobstructed and ensures visibility. There are no observable CCTVs in the premises. The facility design of a walled enclosure restricts access to certain areas. There is no automatic equipment to monitor flow of visitors though security guards check for tickets, attire, and footwear. There is evidence of damage to wall paintings, statues, and artefacts, while secluded corners and alleyways without surveillance make it a soft target. This presents a poor impression of site management.*

Site management: *The notice on the entrance gate advises operating hours. Signage showing directions, maps, and facilities encourage involvement in safe activities. The warning signs advise visitors to be vigilant and take care of their belongings. In the absence of a PA system, the guards and staff are directing visitors to various attractions. The empty bins, clean toilets, nicely manicured plants and trees are positive signs of routine maintenance. However, there are instances of litter, public smoking, people sitting on landscaping elements, and graffiti. The site management, other businesses, and NGOs are actively involved in attraction operations.*

Observable sign and acts of vandalism: *There is widespread damage to artefacts and items of cultural value as well as misuse of tourism infrastructure.*

Chao Phraya river taxi/cruise/park (ThaTian jetty and Nagaraphirom Park): The river cruise and the Nagaraphirom Park on the river, overlooking the Wat Arun, are major tourist attractions.

Site characteristics of physical design: *The signage on the outside identifies the ThaTian Jetty and the directions to the pier, while the landscaping of the adjacent NP separates it from the jetty, nearby buildings, and market. The walkways around the park provide the boundary to the facility. The signs in English and Thai language and the non-verbal signage give a sense of the surroundings. The Nagaraphirom Park follows open design with opportunities for self-surveillance. There is a police guard post the side of the park for vigilance. The operational hours of the toilets are clearly identified at the entrance of the underground facility. The jetties along the river are also open-designed, and a staff member is present at each jetty to guide passengers. There is sufficient natural and mechanical lightings at both locations, however, several corners and recessed paths are obstructed with litter or used as storage area. CCTVs were not observable either at the park or on jetties. The Nagaraphirom Park is an open-access property situated by the road. The river provides a natural access control element to the park and the high-rise wall to the right of the park does the same. The road in front and by the lane leading*

to the jetty offers open access to the park throughout the day. The jetties are also accessible by visitors and boatmen throughout the day. There is no formal access control mechanism, manual or mechanical, on the jetties or the park. The information on legitimate opening hours of the jetty and the park is posted on a signboard, but there are no any observable mechanism to control after-hours access. There are signs of vandalism, secluded areas, corners, recessed doors without surveillance, making it a soft target.

Site management: *There is limited signage on the jetty and in the park. The Nagaraphirom Park has ample sitting space for visitors. The fence by the riverside provides safety to visitors, but the jetty did not have safety barriers. The signage to the toilets and the ramp for physically challenged visitors is useful. There is no signage leading to the public transport, but announcements are made to guide/inform visitors. The overall impression is poor site management and lack of maintenance. The litter bins are overflowing, signboards are damaged, and graffiti is abundant. There are very few signs of repair and none are recent. There is a lack of stakeholder active involvement.*

Observable sign and acts of vandalism: *Widespread graffiti, litter, damage to public property, water pollution, and abuse of tourism infrastructure.*

Lumpini Park (LP) is one of the most popular parks in Bangkok usually compared to the Central Park in New York.

Site characteristics of physical design: *The walkways from the train station and the roadside lead to the large gates of the park. The park is surrounded by roads and enclosed in high-boundary walls with designated entry/exit points. Signage in English and Thai language shows the map, desired behaviours, and directions. There are enough signage and maps to navigate through the park. The park has an open design, providing opportunities for self-surveillance. There are guards on every gate, and a few guards are on patrol within the park while toilets have a designated cleaner. There is sufficient natural lighting, and the mechanical*

lights come on once it starts to get dark. The park is illuminated and free of obstructions. There are no observable CCTVs on site. Being a gated community, the seven main gates are the primary mechanism of access control. The signage on the gates also identifies the legitimate opening hours of the facility. The gardens, lake, sporting facilities, amenities, and playground are separated by roads. The canal and the lake provide natural access control, while guards at the gate are to enforce formal control (entry or exit) as necessary. There is no automatic equipment to monitor access. There are no secluded areas, but lack of surveillance makes it a soft target.

Site management: *The extensive use of signage and markings on the road is useful in managing the visitors. Directions to various sections of the park facilities motivate involvement in safe activities. Verbal and non-verbal signage caution unsafe activities. The level of cleanliness, extent of activity support, and available amenities give a very positive first impression. But the lack of maintenance is evident. There are few signs of repair. General negligence in repair and general damage to facilities is evident. The site management and establishments within the site and the local government seem to have an active involvement in site management.*

Observable sign and acts of vandalism: *There is widespread breakage of signboards, litter, damage to public property, and abuse of tourism infrastructure.*

Jim Thompson House Museum is an exemplary eco-tourism site and one of the most popular tourist attractions in Bangkok.

Site characteristics of physical design: *The signage outside the site identifies the property and leads visitors inside through a large gate into the compound. The large open walkway leading to the main section is flanked by a souvenir shop and an art gallery on the left and a restaurant on the right. The signage around the attraction is unobstructed and clearly understandable. The verbal signage is in English, and the non-verbal signs are carefully placed at various sections. The open design provides self-surveillance opportunity in the outdoor setting of the site. Since the inside of the museum has small rooms, all visitors are broken down into*

small manageable groups and escorted by a tour guide into the museum at regular intervals. There are security guards stationed at main sections of the museum to ensure all visitors have left the section. The rooms with open display of artefact have CCTV surveillance. The house museum is an enclosed property with the main gate as the only entrance. The canal on one side provides natural access control in addition to the boundary wall. The landscaping in the house leads visitors from the courtyard to the main section. The physical design of the property leads from one section to the other, and access to the museum is only by an entrance ticket. The signage outside the house provides the operating hours of the facility. Effective visitor management and surveillance makes it a hard target to vandalise.

Site management: *Visitors are only allowed in the museum in guided tours held every ten minutes in different languages. Facilities in CCTV-covered lockers are available to store bags, shoe racks, and benches promote safe activities. The tour leaders are polite and helpful. The regular announcements on the PA system and support staff are helpful in guiding behaviour. The property exemplifies a well-preserved eco-tourism and cultural centre in the middle of Bangkok city. The toilets and litter bin are cleaned regularly. The workers manicure the garden, while the woodwork and flooring are polished and well maintained. There are fresh signs of repair of the pavement and the garden wall. There are evidence of active involvement of site management, establishments within the site, local government, and NGOs.*

Observable sign and acts of vandalism: *There are no signs of vandalism other than damage to museum property in a specific section.*

Pathum Wan area is a busy commercial district featuring malls, street ware, and eateries.

Site characteristics of physical design: *Very few symbolic signs to claim territoriality. No identification marks other than the train station and a few signs around the train station. Pathways separate the road and lead to the properties on either side of the road, while the overhead bridge links to the other side of the road. The signage in English and Thai and some non-verbal signs are unobstructed but vandalised. It is an open area with self-surveillance opportunities. There are no formal or organised surveillance such as security guards, patrols, or CCTV. The lighting is not sufficient and several street lights are not working. The open-access site has few informal, natural, or formal elements of access control. The pavements are damaged, while pedestrian crossings are not functional. The overhead bridge is the sole access mechanism. Pedestrians cross the road everywhere while visitors are on the road hailing taxis. Widespread property damage, secluded sections with poor visibility, and no surveillance make it a soft target.*

Site management: *Signage and public facilities are damaged and not functional. There is a Bangkok Tourism Authority (BTA) information booth to guide visitors at the road junction. The physical setting leaves a very poor image with broken walkways, broken fence/railings, vandalised street lights and telephone booths, graffiti on signboards, pillars, walls, and litter everywhere. These are no signs of maintenance, repair, or rehabilitation. There are no public toilets in the vicinity and only a few litter bins. There is a lack of active stakeholder involvement.*

Observable sign and acts of vandalism: *Presence of graffiti, damage to public facilities, litter, and property damage in general provides evidence of vandalism.*

Chinatown in Bangkok is a busy commercial district full of rich Chinese culture and heritage.

Site characteristics of physical design: *A big colourful gate on the roundabout at the mouth of the road is a landmark that is difficult to miss. The walkways along the road lead to the*

by-lanes, some of which are not motorways. The signboards are in Thai, English, and Mandarin languages together with several non-verbal signs. The open design encourages self-surveillance. A manned police guard post provides vigilance. There is sufficient lighting to illuminate the access pathways and walkways. Some of the alleyways are dark, signifying poor lighting. Only a few CCTVs (at crossings and street entrances) are installed for surveillance of the streets and market area. Some sections are obstructed, while overcrowded streets/footpaths result in poor visibility. Being an open-access setting, visitors can come in from any direction. The walkways and the cobblestone paved streets acts as informal access control elements. In the absence of natural elements, the pedestrian crossing, road signs, traffic lights, parking guidelines are a few examples of limited presence of organised control. There is no automated control equipment. Widespread property damage, secluded sections with poor visibility, and no surveillance make it a soft target.

Site management: *Signage and maps encourage involvement in safe activities, while no smoking, no parking, no entry sign guide visitors away from unsafe activities. The Bangkok Tourism Authority (BTA) information booth renders help to visitors. There is an absence of public toilets and insufficient bins on the site. The colourful setting with vivid sights and scents is diminished by the poor image of the site due to litter, damage, lack of maintenance, on repair and rehabilitation, vandalised amenities, and neglect in general. The establishments within are the only active stakeholders.*

Observable sign and acts of vandalism: *There is widespread breakage of signboards, litter, damage to public property, and abuse of tourism infrastructure. Visitors are breaking traffic laws, and unauthorised parking is visible everywhere.*

Grand Palace: The Grand Palace is the most visited tourist attraction in Bangkok (TAT, 2011).

Site characteristics of physical design: *The Grand Palace is a gated community with high walls all around and designated access points. The inside of the palace is differentiated by wide walkways, gardens, and buildings. Boundary walls provide real barriers and a territorial claim, while there is signage in English and Thai and maps to provide spatial identification. The signboards are clearly illuminated, visible, and easy to understand. A large complex with open areas and big buildings provide self-surveillance opportunities. Guards and CCTV at entrances and temple foyers act as formal or organised surveillance elements. The walkways are free of obstruction and convenient to access. The opening hours are clearly stated at the entrance and all gates are monitored. The guards at the palace entrance check for ticket or identity card and attire before letting visitors into the facility. The main exhibits, such as statues in the temple, paintings on the walls, places of worship, are behind barriers while artwork on walls is covered by glass panes at some places. The site is unsecure and provides an easy target for vandals due to poor access control.*

Site management: *Extensive signage, maps, and facilities encourage safe activities and guide behaviour away from unsafe activities. The public announcements and guards directing visitors help in diffusing large number of tourists quickly. The setting is in a very large physical premise. The buildings, gardens, and landscaping deliver a very positive impression on a macro level. The large number of staff, automatic equipment, and large number of visitors imply a large operation team, making it look functional. Active participation of site management, local government, and general community is visible.*

Observable sign and acts of vandalism: *Evidence of damage to property of cultural value together with litter and visitors breaking rules reveal some signs of vandalism.*

Khaosan Road Market is a busy nightlife street with several food and beverage outlets and nightclubs.

Site characteristics of physical design: *The market is a long street with commercial establishments on either side of the road. The road entrances on opposite ends are blocked with barricades and no entry signage for motorised vehicles. There is a sign at the street corner identifying the road. Only a few signs in English and Thai, but no non-verbal cues were observed. The open street provides self-surveillance opportunities. But there is no surveillance of the establishments in the scores of buildings, alleyways, and corners. There is a large police station at one end of the road with several staff inside, but none were observed patrolling the street. A few CCTV cameras provide additional surveillance of some sections. There is sufficient lighting on the main street, but the by-lanes and alleyway are poorly illuminated. The opposite ends of the road are the main access points. The entrance and exit points are unmonitored. Natural access control elements are absent and there is no any manual or mechanical process to control access to the site. There is widespread property damage, poor site management, and lack of surveillance, making it a soft target. Lack of stakeholder participation is observed.*

Site management: *A large police station and signage to contact tourist police are the only observable support systems. A public toilet managed by the police encourages tourists to use the facility. There is no signage or announcement to warning visitors to avoid unsafe activities. It is difficult to get an overview of 'Do's and Don'ts' at the facility. The police signage outside the police station is broken. Overall it is a very crowded facility without public control, safety, or security measures. Presence of litter all over the street and dirty public toilets are some examples of poor site management practices. There is extensive graffiti on walls and shop-shutters throughout the street. No observable signs of repair work were observed.*

Observable sign and acts of vandalism: *Widespread damage to public property and abuse of tourist infrastructure.*

Dusit Zoo Bangkok is the main zoological park in Bangkok.

Site characteristics of physical design: *The walled compound with a tall gate and larger-than-life animal figures at the entrance make an imposing statement. The footpath on the outside of the boundary wall leads to the entrances. The inside of the attraction is an example of good landscaping. Some animal exhibits are enclosed while others follow an open layout. The extensive signage is unobstructed, clear, and easily understandable. The verbal signage in Thai and English language shows the directions to other attractions, exhibits, and amenities, while the non-verbal signage suggests behaviours and assist navigation. The property is based on open design and provides opportunity for self-surveillance. There are site guards at all entry and exit points. All access pathways and signage is illuminated and clearly visible. Being a gated community, the access to the inside of the zoo is limited to four designated entry/exit points. The landscaping and barriers act as access controlling elements within the property. Water bodies such as the canal and the lake are natural access control elements within the site. The guards and gantries at some gates control access by an entry ticket. The zoo opening hours are clearly indicated at the outside. The site is secure in terms of access control and safety, but widespread property breakage, litter, and lack of prohibitive signage make it a soft target.*

Site management: *Appropriate signage and facilities provide motivation to be involved in safe activities, while other signage warns visitors to avoid unsafe activities. The litter bins encourage visitors to trash recyclable material separately. The positive first impression at the entrance is soon reversed to a poor image due to lack of maintenance. Several signs are vandalised. The toilets are clean but with graffiti behind the toilet doors. There are several signs of degeneration of exhibits and general construction. The site lacks active stakeholder participation.*

Observable sign and acts of vandalism: *Extensive property damage, lack of routine maintenance, and rapid repair coupled with misuse of tourism infrastructure result in high levels of vandalism.*

Siam City Park (SCP) is a large theme park in Bangkok comprising a water park and thrill rides.

Site characteristics of physical design: *A big sign at the roadside and the large Disney castle-like structure and wide access way to the entrance make a strong symbolic territorial claim. The boundary wall marks the official limits of the property, while the area opposite to the park entrance is a large car park for the visitors. The signage in English and Thai at the entrance and additionally in Russian and Mandarin once inside the theme park is clearly visible and understandable. The non-verbal signs effectively guide behaviour. Once inside the park, the different sections and rides are separated by walkways, gardens, and a low-rise fence. SCP is a large property and is open design–based, which provides opportunities for self-surveillance. Staff is stationed at the ticketing section, ticket checking section, and at each of rides. Roving staff and cleaners are visible all over the site. The physical setting of the park is illuminated and clearly visible. Being a gated community, the access to the site is only from the main entrance. The signage outside the entrance identifies the operational hours of the park. The entry to the main section is by entry ticket checked by staff. The access to exhibits and rides is manually controlled by the duty staff. There is no automated equipment to monitor or control access to the facility. Several parts of large facility are secluded and without any surveillance. The physical setting is large and still provides an easy target for vandals.*

Site management: *Extensive use of signage and ushers are helpful in getting around. Availability of public facilities motivates involvement in safe activities. At the same time, prohibitive signage and the public announcement system in Thai warns visitors to avoid unsafe behaviour. The recycling litter bins are well distributed all over the site. The positive first impression from the outside grandeur of the park is soon reversed due to poor maintenance, litter, and general damage of property. Poor repair and rehabilitation processes were evident from widespread breakage. Routine cleaning of toilets and bins is observable. There are signs of*

repair but more is needed. The site management and the establishments within participate actively in management.

Observable sign and acts of vandalism: *Signs of property damage, poor maintenance, damage to the marine environment, and abuse of tourism infrastructure are evident.*

3.3.2 Summary of visitor attraction sites in Singapore

The following section provides a brief description of the physical audit of attractions in Singapore.

Sri Mariamman Temple is the oldest Hindu temple in Singapore and a popular tourist destination close to the Chinatown district in Singapore.

Site characteristics of physical design: *The footpath along the temple walls leads to the entrance while the 'stick no bills/nails' signage on the outside walls makes a symbolic claim of ownership. Presence of additional signage to advise tourists to avoid certain sections and the barricades and railings inside the temple guide visitors to the main section. The open design and access ways on all sides of the main temple building encourages self-surveillance. There was absence of formal or organised elements such as guards, ushers, or CCTV cameras. All areas of the temple are visible without any obstruction. Being a gated community, the main entrance is the only access to the temple. The only entry/exit point is not monitored. The main deity inside the temple is behind lockable doors. There are no secluded areas, but the entire physical setting is not under surveillance.*

Site management: *Extensive signage outside the temple and within the premises encourages involvement in safe activities, while cues to avoid unsafe activities are evident from warning signs. Separate facility to wash feet before praying and racks to keep shoes also guide behaviours. The well-maintained building and large gate provides a positive first impression, which is enhanced by clean interiors and well-laid-out design. Most of the public facilities with the exception of the toilets were maintained routinely. The trees and flower bed were maintained*

too. Active involvement of site management, local government, NGOs, and the general community as major stakeholders is evident.

Observable sign and acts of vandalism: *There are no signs of vandalism other than limited damage in the toilets and shoe marks on the boundary wall.*

Wild Wild Wet is a popular purpose-built water theme park in Singapore.

Site characteristics of physical design: *The clearly visible big signage at several locations on the outside and a big colourful signage identifying the site make a symbolic claim of the territory. The raised (steps) main lobby and the fence around the facility signifies obvious territorial claim. Once inside the attraction, the location map, barriers, walking bridge, and directions to facilities guide behaviour. The signage is clearly visible and is mostly in English. The non-verbal signage and the exit are clearly marked. The open-design concept encourages self-surveillance. Being a high activity/action facility with small children, lifeguards are stationed all over the site. CCTVs provide additional surveillance at the exits of the water slide, popular rides, and access points. The site was illuminated with natural light with provision for floodlight when it is dark. It is a purpose-built facility without any natural access control elements. Information related to the operational hours of the park is available at the entrance, which serves as the only access point from the main lobby. Access to thrill rides is controlled by the lifeguard on duty for that ride. No corner or alleyway appears to be secluded. The entire physical setting of the site is under surveillance, making it a hard target to vandalise.*

Site management: *Extensive signage about attire, heath restrictions, and medical conditions outside the site entrance pre-informs visitors before entering the site. The location map, facilities such as life jackets, locker room, changing room, first-aid room, and ample sitting motivate involvement in safe activities while warning signage prompts visitors to avoid unsafe activities. Vigilant lifeguards and announcements via the PA system guide visitors on the site. Clean and maintained exteriors and interiors provide a positive image. Public facilities are routinely maintained. Signs of repair work in the toilet and upgrading work in progress*

demonstrate routine repair and rehabilitation. The flower bed outside the main lobby is maintained. Active involvement of site management, establishments within, and the general community is evident.

Observable signs and acts of vandalism: *There are no signs of vandalism other than damage in the toilets and shoe marks on the boundary wall.*

Clarke Quay (CQ) is a popular market/mall known for its nightlife. The outdoor setting of the pedestrian mall is selected for the physical audit.

Site characteristics of physical design: *The cobbled street and the by-lanes of CQ are located between the Singapore river and the road. The raised walkway along the shop houses and fence on the riverside claim control and mark the territorial boundary. A big signage and location maps at all entrances together with street sign and identification signage on the blocks give a sense of the surroundings. The private establishments within the property use landscaping, furniture layout and design elements to mark individual territory. The board walkways provide self-surveillance opportunity for both visitors on the street and staff in the outlets. All access pathways, walkways, alleyways, and corners are illuminated and clearly visible. The entrance and exits of corridors, staircase, lobbies are clear of obstructions. The CCTV cameras, police patrols at night, and staff at outlets within the site provide formal surveillance elements. It is an open-access property. However, access to individual outlets is controlled by respective managements. The drop-off/pick-up point, bridge across the river, underpass from the city, and bus stop are the main access points for visitors. The signage to avoid bicycling and roller-blade users limit access to pedestrians only. The site does not have secluded areas, but it lacks surveillance, making it an easy target.*

Site management: *The location map, amenities, and facilities such as drop-off point, taxi ranks and, security room encourage involvement in safe activities, while warning signs provide information to avoid unsafe activities. Litter bins are located everywhere, and enough signage*

and efficient site design exist to navigate easily. The overall impression is positive as the site is clean and well maintained. There is a need for repair and rehabilitation in some areas. Primary stakeholders—the site management, establishments within the site, and the local government—are involved in site management.

Observable signs and acts of vandalism: *Instances of cigarette butts, empty beer bottles, damage in toilets, property damage in general, and abuse of tourism infrastructure.*

Marina Bay precinct (Waterfront promenade) is primarily an outdoors location around the scenic Marina Bay.

Site characteristics of physical design: *The broad, fully visible walkway along the Marina Bay and the park connectors and the accompanying signage including location map symbolize a strong sense of ownership. The verbal signage in English and Mandarin and the non-verbal signage are clearly visible and easy to understand. The open design encourages self-surveillance. Some sections of the walkway are patrolled by security guards. The extensive use of CCTV cameras provides additional organised surveillance. A mix of natural and mechanical lighting illuminates the area. The walkways are the main access along the bay. Underpasses, exits to nearby attractions, and pedestrian access lead into the walkway. Formal access control includes the designated entry and exit points from the train stations and underpasses, The information related to use of underpass is available through signage, while the entry and exit points are unmonitored as it is an open-access facility. Good surveillance and site management makes it a difficult target to vandalise.*

Site management: *Public facilities and amenities around the bay motivate visitors to be involved in safe behaviours. Signage on undesirable behaviours warns visitors of unsafe activities. A centrally located information centre with a mini model of the MB precinct provides a visual overview of the surrounding. Overall cleanliness and a well-maintained atmosphere create a positive image. There is evidence of ongoing repair and upgrading work. Public facilities are*

cleaned regularly. There was evidence of active participation of site management, establishments within the site, local government, NGOs, and the general community in managing the attraction.

Observable signs and acts of vandalism: *There is limited evidence of property damage.*

Singapore Zoo's 'open concept' has made it a popular tourist destination. The zoo hosted 1.6 million visitors in 2013 (Wildlife Reserves Singapore, 2014).

Site characteristics of physical design: *The large signage on the main road leads to a service road, which ends at the entrance of the property. The signage and raised lobby area symbolize control and territoriality on the outside. The landscaping in the zoo enclosure provides symbolic and real barriers such as broad walkways, flower beds protected by logs, and thick bush as a hedge. The verbal signage in English and Mandarin and the non-verbal signage are commonplace, clearly visible and easy to understand. The open design of the site encourages self-surveillance. The roving rangers and cleaners provide informal surveillance. The entire physical setting is illuminated. The entrances and exits of corridors, corners, and alleyways are free of obstruction. The walkways outside the park lead to the main lobby and to the ticket gantry inside the premises. The walkways in different directions lead to exhibits and public facilities, while landscaping features such as vegetation, moats, stoops, barriers, etc., control access to animals. The landscaping effectively eliminates any secluded areas. Backstage and storage areas are behind high barricades, and locked gates prevent access. However, the entire facility is not under surveillance and thus provides some opportunity to potential offenders.*

Site management: *Signage directing visitors to exhibits, amenities, activities, and show timing and facilities motivate safe activities. Warning signage provides information to avoid unsafe behaviours. Litter bins and the centrally located food centre help limit the spread of food leftovers to other sections of the site. The overall impression is very positive as the physical settings appearance is very functional, clean, and maintained. Signs of old and recent repair work of facilities suggest routine repair and rehabilitation. There is evidence of active*

involvement of the site management, establishments within the site, local government, NGOs, and the general community.

Observable signs and acts of vandalism: *Carving on bamboo trees in a specific section, carving on wooden benches, damage to property in toilets are the only instances of on-site vandalism.*

Siloso Beach, Sentosa, a man-made waterfront attraction is a popular tourist destination for swimming, picnic, beach sports, boating, a leisurely stroll, and sunset viewing.

Site characteristics of physical design: *A large structure spelling 'S-I-L-O-S-O' at the busy end of the beach draws attention and presents a symbolic territorial claim. Signage towards the beach from the public transport drop-off point, the service road along the beach, and raised footpath along the road mark the territorial boundary. The location map, verbal signage in English and Mandarin, and non-verbal signage are clearly visible and easy to understand. The other private establishments on the site are enclosed in a fence or on a raised platform from the beach level. The open design provides opportunity for self-surveillance. The lifeguard tower and the guards, roving rangers, and the CCTV cameras are the formal surveillance elements. The natural lighting and floodlights at night time illuminate the entire physical setting, while the access to the service road and footpaths are free of obstructions. Facility design element provides informal access control. The beach is the natural access control limited to private boats arriving at the jetty. The access to the jetty is controlled by a locked gate and warning signage not to enter. The access to individual outlets is managed by the respective businesses. Facility design features such as floodlights with tamper proof casing makes the site a hard target.*

Site management: *Public facilities, amenities, and related signage motivates involvement in safe activities, while detailed verbal and non-verbal signage regarding the use of the beach and safe swimming practices provide information to avoid unsafe activities. The PA system and*

ushers at public transport access point help is directing visitors. However, there is a lot of litter on the beach. The site gives an impression of being functional. Cleaners and workers provide routine maintenance to landscaping and facilities. Evidence of old and fresh repair work confirms routine repair and rehabilitation. However, there is widespread damage to public property such as broken toilet seats and basin, litter on the beach, and carving on stones/trees. Only the site management seems to have active involvement.

Observable signs and acts of vandalism: *Considerable vandalism in form of carving on trees and rocks, litter on the beach, broken toilet seats, and general abuse of tourism infrastructure.*

Orchard Road is perhaps the most famous tourist attraction in Singapore and is similar to a high street or major European shopping strip.

Site characteristics of physical design: *Signage on both ends of the road identifies the road to visitors using the road or the footpaths. Presence of similar signage at the underground train station leads visitors out on the street. The road is flanked by large walkways and rows of trees, and plantation separates the road and the walkway while the walkway provides the access path to the shopping malls. The street-level map indicates where you are walking, which assists in navigating the physical setting of the site. The signage is unobstructed and clearly visible. Most signs are in English with non-verbal warning signs. The open design provides self-surveillance opportunities. The walkway and the open area are in open sight of the guards in the malls and staff at roadside outlets. There is sufficient lighting both natural and mechanical to ensure visibility of access pathways, and entrances and exits are clear of obstruction. The physical design and landscaping provide informal access control. The plantation prevents pedestrians accessing the road. There are raised walkways to keep the plants safe on the lower level. The facilities together with supportive signage also prevent jaywalking. Effective physical design and efficient site management makes the site hard to vandalise.*

Site management: *Public facilities and accompanying signage motivate visitors to be involved in safe activities while warning signage prompt visitors to avoid unsafe activities. The level of cleanliness and routine maintenance give a positive impression to visitors. Ongoing construction, replanting of bushes /flower beds, cleaning of litter bins confirm routine maintenance, repair, and upgrading. There is active involvement of the site management, establishments with the site, local government, NGOs, and general community.*

Observable signs and acts of vandalism: *There are no signs of vandalism other than some litter and minor graffiti.*

Ngee Ann City (Takashimaya Shopping Mall) is a landmark property located on the Orchard Road in Singapore.

Site characteristics of physical design: *The steps, fountains, and low-rising plants and flower bed act as symbolic barrier between the busy walkway on Orchard Road and the building. Signage in English and non-verbal signs such as private property no thoroughfare, no loitering make additional territorial claims. Inside the mall, there are walkways leading to various sections of the shopping centre. The U-shape building design provides added opportunity for natural surveillance. The open design with long and broad corridors on the outside encourages self-surveillance. The establishments within the mall provide surveillance around its boundary. Presence of security guard on every floor of the mall and CCTV cameras provides organised surveillance. The entire physical setting is well illuminated, ensuring visibility in the site. The doors and pathways are also clear of any obstruction. The stoops and ramps are only access elements as per the physical design. The opening hours of the property are clearly stated on the outside. All entrances are with gates and roving security personnel monitor the entry and exit of visitors. The access to establishments within the mall is controlled by their management. The property damage on the outside and signs of vandalism as well as poor enforcement leave an impression of a soft target.*

Site management: *Signage and amenities encourage involvement in safe activities, while warning signs provide information to avoid unsafe activities. Announcements on the PA system and information signs about public transport guide behaviours. The signage and facilities provide a good overview of expected behaviour. The property delivers a positive image as it is well maintained. Toilets and bins are cleaned regularly and the floor and the walls of the mall are well kept. Though there are signs of recent repair work, no current repair work in progress. The site management, establishments with the site, and local community are the active stakeholders.*

Observable signs and acts of vandalism: *The damage to site property on the outside of the building and presence of litter.*

Asian Civilization Museum is a popular stopover for tourists in Singapore. The central location of the museum makes it easily accessible.

Site characteristics of physical design: *The landscaping outside the site provides symbolic claim on the surrounding. The entrance gate is mounted on a stoop to demark the actual territory. Galleries in the museum are big halls with designated entry and exit points. The signage in English, Mandarin, Japanese, Malay, and Tamil complement with non-verbal signage creates a clear sense of the surroundings. The open space around the property, open ground in front, clear glass entrance doors, open lobby provide natural surveillance elements. Staff at the counter and security guards at every gallery are forms of organised surveillance. The CCTV cameras cover the entire physical setting and provide additional layers of surveillance. Galleries are also equipped with motion sensors for after-hour surveillance. The mix of natural and mechanical lighting is employed to create a visual impact without compromising visibility of walkways, signs, and site maps. The entry to the museum galleries is via the main lobby. Visitors must pass through the lobby to access the museum. The river provides natural access control on one side while the other two sides are roads. The access to galleries is via designated entry and*

exit points monitored by security guards. The opening hours and charges are informed on a large board outside the main entrance gate. The entire physical facility setting is under surveillance, making it a hard target.

Site management: *The signage in different languages assists navigation, while a wide range of facilities motivate participation in safe activities and warning signs provide information to avoid unsafe activities. The information booth at the ground floor provides the map to the museum and guides visitors to the entry. The clean and maintained exteriors and interiors of the museum, well-maintained exhibits leave a very positive image. There is routine maintenance of public facilities such as resting areas and toilets. The site management, establishments with the site, local government, NGOs, and general community are the active stakeholders.*

Observable signs and acts of vandalism: There are no signs of vandalism.

Chinatown Singapore has attracted tourists due to its rich cultural heritage and easy accessibility.

Site characteristics of physical design: *The street-level signage and building structure identifies the area as Chinatown. A broad road with raised footpaths on both sides leading to outlets and streets presents the symbolic territorial claim. The marking on the street floor prevents outlets from encroaching on the walkway. The signage informing no entry time for motorized vehicles assists in controlling traffic in the area. The verbal signage in English and Mandarin and the non-verbal signage are clear and understandable. The open design facilitates surveillance on the street and by establishments in the market. The malls have their own security personnel, while the CCTV cameras cover the area around the MRT stations and a few open areas. The entrances and exits are free of obstruction. A neighbourhood vigilance group has been set up to provide surveillance. It is an open-access facility and visitors can access the area from all directions and subway. The MRT stations and shopping malls have designated operating hours. The access to on-site outlets is controlled by respective management policy. Widespread*

signs of vandalism and property damage make the site an easy target for vandals. There is a lack of enforcement and surveillance.

Site management: *The verbal and non-verbal signage motivates involvement in safe activities and gives information to avoid unsafe activities. Presence of a tourist information centre and public facilities guide behaviour. Absence of no litter signage has led to considerable litter in the area. The deteriorating facilities and widespread property damage does not give a positive image to a visitor. The walkways and staircase need repair. There are signs of old and recent repairs, but the work is not comprehensive. The site management, establishments with the site, local government, NGOs, and general community are the primary stakeholders. The neighbourhood vigilance committee is a good example of stakeholder participation.*

Observable signs and acts of vandalism: *Evidence of graffiti, litter, damage to walkways, parking gantry, breakage of property in general, and abuse of tourism infrastructure.*

Singapore Botanic Garden is a centrally located nature reserve and park popular with local and foreign visitors.

Site characteristics of physical design: *Signage on the main road, raised platform, and footpaths leading to large entrance gate provide a symbolic territorial claim. The high boundary wall all around the facility and lockable gates provide the real barriers and territoriality. The inside of the park has broad walkways leading into the various sections of the park. The non-verbal and verbal signage in English, Mandarin, Malay, and Japanese are clearly visible and easy to understand. The signage directs visitors to the attractions, public facilities, exits, and the map of the location. The open concept facilitates self-surveillance. A few CCTV cameras are visible, but they do not cover the entire physical setting. The mix of mechanical and natural lighting illuminates the access pathways, walkways, steps signage, and maps, ensuring visibility. The access to the park is from two main entrances. In the absence of natural access control elements, the no-entry signage and barriers, fence, automated gantries for motor vehicle access,*

and the main gates provide formal access control. The opening hours of the facility are conveyed on the outside with signage points at various exits. The facility design and landscaping makes the property a hard target to vandalise, but lack of surveillance has resulted in litter, carvings on trees, and damage to property in some toilets.

Site management: *The amenities and facilities motivate involvement in safe activities, while other signage provides cues to avid unsafe activities. The information booth, public transport signage, and directions are helpful in navigating the facility. The clean, well-maintained site leaves a positive image. The trees, plants, flower beds are well maintained. The bins and toilets are maintained. The evidence of old and recent repair reflects rapid rehabilitation. The park was functional with exception of some broken branches and overflowing litter bins. The site management, establishments with the site, local government, NGOs, and general community are the primary stakeholders.*

Observable signs and acts of vandalism: *Evidence of carving on trees, litter, damage to walkways, water pollution, damage to animal life, breakage of property in general, and abuse of tourism infrastructure.*

3.3.3 Cluster analysis

The physical audit of 22 sites in Singapore and Bangkok was carried out with one of the aims to view the outcomes of the vandalism prevention and control by identifying sites with common characteristics. This was achieved by classifying the sites into clusters. Each site was given a quantitative rating for nine parameters. These parameters are the characteristics of a visitor attraction, and sites were then grouped on the basis of similarity according to these characteristics. Using cluster analysis as described earlier in section 3.2.7, the rich description of the sites in view of the nine dimensions was represented in a visual map for easy understanding. There are two benefits of grouping sites into homogeneous groups. Firstly, it emphasises the similarity of characteristics of sites within the group and aids intra-group comparison. Secondly, the reduced number of groups provides manageable number of entities to make inter-group comparison.

Using PASW software, hierarchical cluster analysis of the twenty-two sites was conducted using single linkage (nearest neighbour), complete linkage (furthest neighbour), and average linkage (Centroid) methods. Hierarchical cluster analysis (HCA) method maximises the similarity between cases (sites) within a cluster (group) by nominating them in homogenous groups on the basis of hierarchy. The method is also helpful in maximising the differences between clusters. According to Baggio and Klobas (2011), the reliability of cluster analysis is established by comparing the outputs using different clustering methods. 'It is generally an acceptable practice to use different methods and repeated clustering iterations provide the "best" number of clusters' (Muloin, 2000, p. 211). The process of using different clustering methods also provides

an opportunity to compare different solutions and enables choice of the most appropriate approach to clustering.

The results of the Ward method were selected for identifying and analysing clusters. The choice of Ward method is supported by its popularity as a frequently used and reliable method of hierarchical cluster analysis (Aldenderfer & Blashfield, 1984; Everitt, Landau, Leese, & Stahl, 2011).

The output of the analysis in the form of a dendrogram in Figure 3.4 represents a visual map of the five clusters: sustainable, low involvement, poor management, poor enforcement, and vandalised cluster. The size of the clusters is another variable influencing the prediction validity. According to (Everitt et al., 2009), a cluster should have three or more members to be of any significance. The clusters in this study fulfil the validity criterion. Three of the five clusters comprise of four cases (sites), while the other two are comprised of five cases each. The following section presents the five clusters briefly. Images are employed to provide a richer medium of communication to aid understanding of the description and to provide a visual explanation of the site properties.
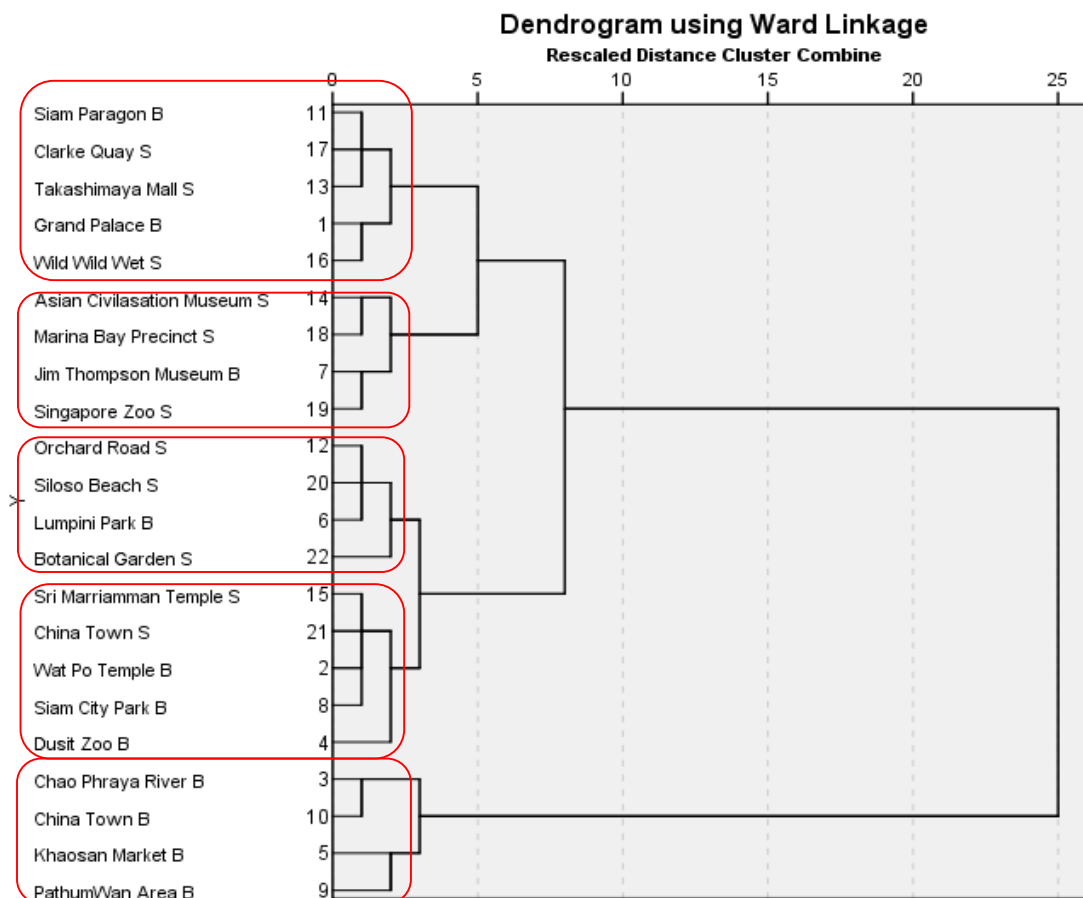
Figure 3.4. Dendrogram to illustrate five clusters using Ward linkage

3.3.3.1 Commonality of clusters

The description of the five clusters provides an overview of the characteristics of the sites and the rationale for the grouping. Figure 3.10 illustrates the similarities and differences between the clusters. A higher score represented lack of attention, thus, was not favourable to the cluster's overall profile. The highest mean score was 4, while 1 was the lowest score for all properties. The properties of the site (measure names in the legend) are represented by respective symbols. The location of the symbol on the vertical continuum help is comparison of respective property across clusters. The five clusters are colour-coded with the *sustainable* cluster in green, while the worst rating *vandalised* cluster is in red. A red coding of the vandalised cluster signify that the properties of the

site received poor attention. In contrast, the green colour-coded sustainable cluster illustrated adequate consideration by the site management.

As evident from the Figure 3.5, *vandalised* cluster is a contrast from the *sustainable* cluster in all properties analysed in the study. There is evidence of vandalism at all sites in the vandalised cluster in comparison to the sustainable cluster with no or very little vandalism. The *low involvement cluster*, *poor management cluster*, *and poor enforcement cluster* are distinguished on the basis of certain key characteristics. The low involvement cluster records a high degree of similarity with sustainable cluster in site characteristics of physical environment, site management, and lower levels of property damage. Nevertheless, the low involvement cluster exhibited below-average rating when compared to image/maintenance, land use, and property management practices such as repair, maintenance, and restoration of the elements. A lack of involvement of primary stakeholders was also recorded in contrast with the sustainable cluster. Low stakeholder involvement and poor management of site operations at sites within the cluster could be the possible reason for higher level of vandalism at these sites.

The sites in the poor enforcement shared the common features of being geographically large and primarily outdoors settings. The nature of the physical environment created challenges in ensuring complete surveillance of the physical setting. The difficulty in maintaining the large geographical setting was also evident from the scores at the sites. Similarly, the open outdoors environment arguably resulted in the perception of a soft target, which was easily vandalised. These processes presumably encouraged deviant behaviour and higher levels of property damage at the sites within the poor enforcement cluster.
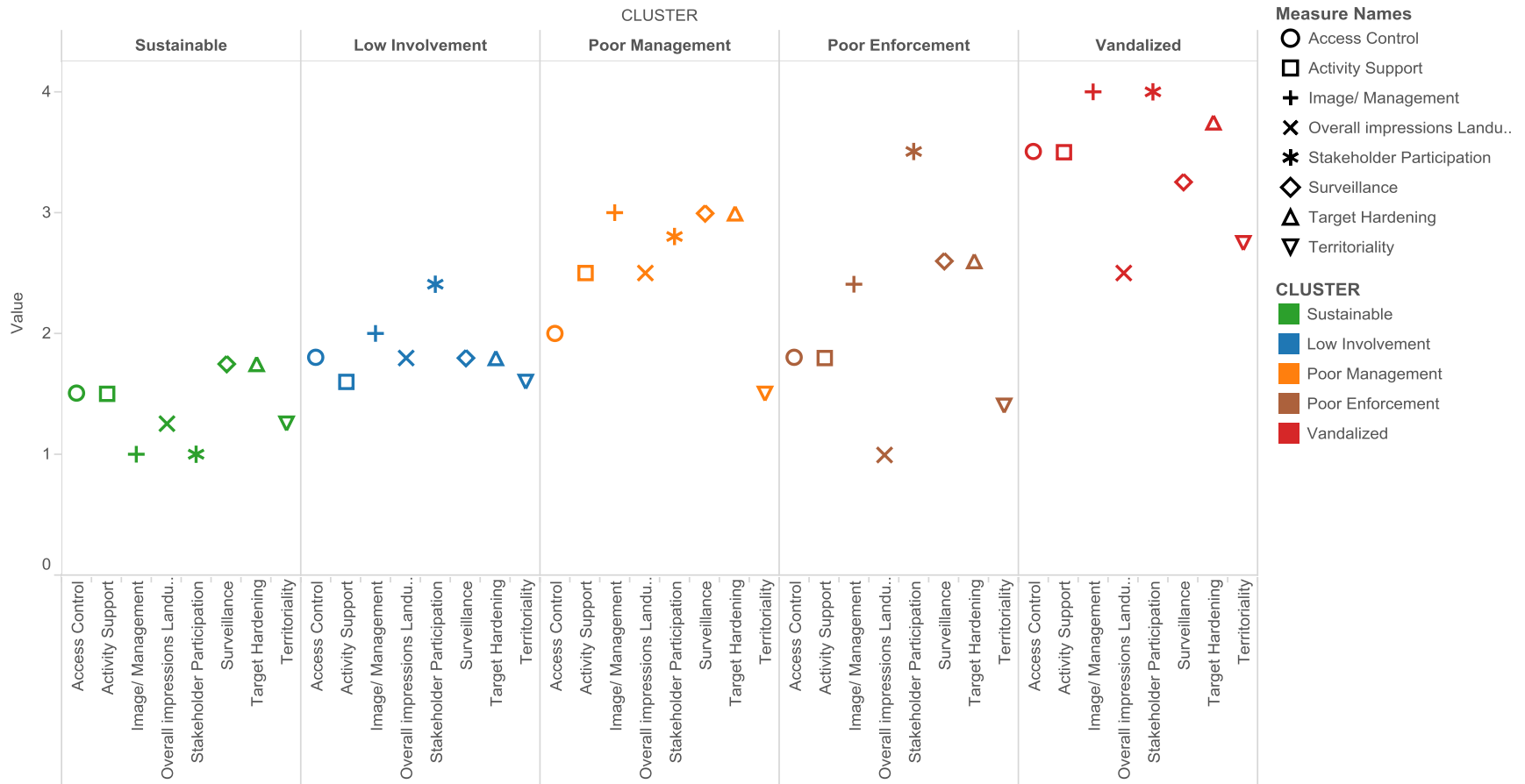
CLUSTER

Figure 3.5. Visual presentation of properties (measures) of the five clusters

Poor management cluster is characterised by poor site management. The higher scores compared to the sustainable, low involvement, and poor enforcement clusters in properties of surveillance, activity support, image/management, and impressions of land use signify poor operational policies and practices resulting in poor site management. The sites in this cluster exhibit scores at larger distance with those in the sustainable cluster and similar to sites in the vandalised cluster. The skewness towards the vandalised cluster was also evident in the higher levels of vandalism at these sites. The five clusters are outlined in the next section. A picture composite accompanies the narrative. The use of photographs will enhance the understanding of properties of each cluster.

3.3.3.2 Cluster description

The following sections describe the clusters in details. The visitor attraction sites were categorized into five clusters, namely, sustainable, low involvement, poor management, poor enforcement, and vandalised cluster. The narrative accompanying the cluster analyses the eight properties of the site. The accompanying picture composite provides visual evidence and additional communication medium.

Cluster One – Low involvement group

One of the two larger clusters, 'low involvement' cluster comprised of Siam Paragon, Takashimaya Mall, Wild Wild Wet, Clarke Quay, and the Grand Palace sites. The five sites in the cluster had similar ratings in territoriality, access control, activity support, image/management, and extent of vandalism.

The sites are characterised by low levels of involvement of visitors in exhibiting desired behaviours and indifference of key stakeholders such as the local community, site management, and the government authorities. The sites in the cluster exhibited low scores consistently across the 'site management' properties of image/management and stakeholder participation. The majority of the sites were reported to be vandalised. All sites in the cluster

were under an identifiable management regime where private, public, or voluntary

management was responsible for management. However, there were limited signs of active

management involvement and action.

In the Figure 3.6 picture composite evidence, the low involvement group shows

visitors are exhibiting less desired behaviours by disregarding the signage and damaging the

property. Lack of involvement of primary stakeholders encourages deviant visitor behaviours

and widespread property damage.
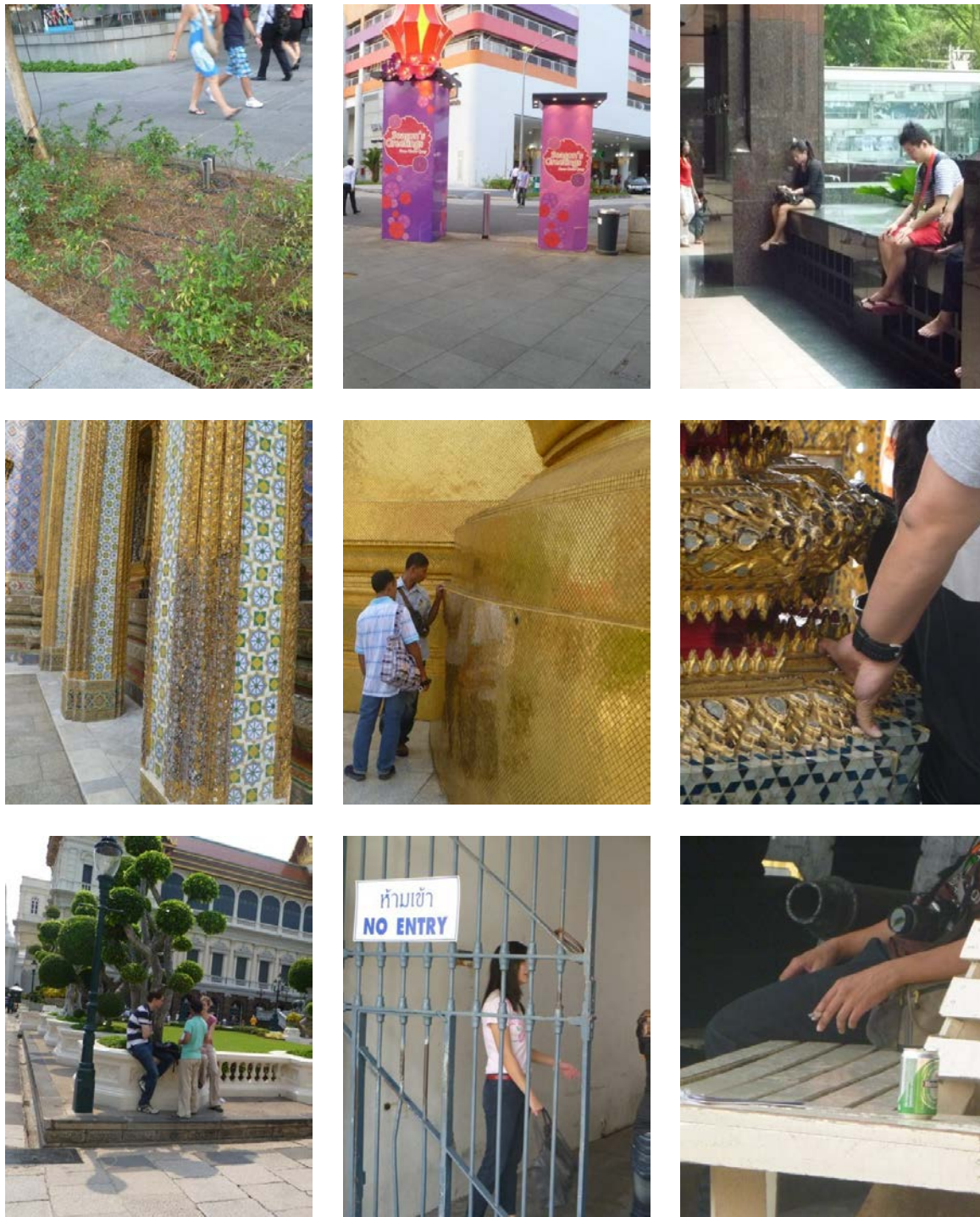
Figure 3.6. Images supporting low involvement group cluster

Cluster Two – Poor enforcement group

The cluster comprised of Lumpini Park, Orchard Road, Siloso Beach, and Singapore Botanical Garden. The sites in this cluster exhibited a very high level of homogeneity in scores across the eight site properties. A distinguishing characteristics of the cluster was the 'outdoors' and large physical setting of the sites. The sites consistently scored low ratings in surveillance, image/management, and target hardening dimensions with high level of vandalism. Poor surveillance and maintenance has results in high levels of property damage at these sites. Inadequate measures to target hardening the site result in vulnerable property elements, soft target for vandals. There was a lack of adequate enforcement of rules and policies to correct deviant behaviour. The cluster was characterised by high involvement of stakeholders and positive overall impressions of land use. The sites were managed by public or voluntary management organisations.

Poor enforcement of rules and signage is evident in the accompanying picture composite in Figure 3.7. Lack of adequate surveillance has resulted in widespread property damage. The above images illustrate the disregard of rules and signage.
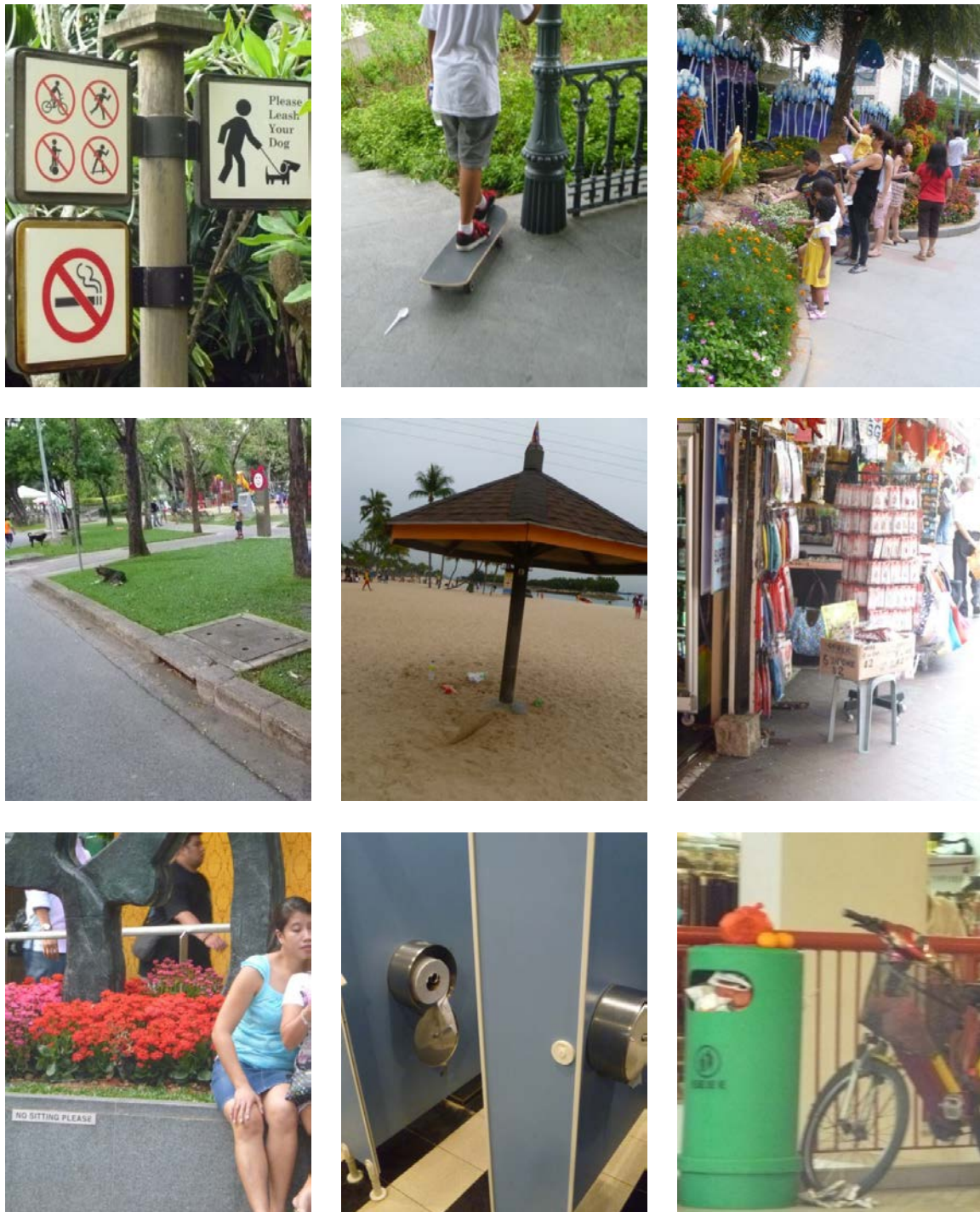
Figure 3.7. Images supporting poor enforcement cluster sites

Visitor presence in 'keep away' zone in Sentosa, display of merchandize beyond the

regulated white line in Chinatown, Singapore, and visitors ignoring the prohibitive signage

are examples of poor enforcement. Presence of litter and general damage highlight the need

for surveillance and target hardening in geographically large attractions.

Cluster Three – Poor management group

This was the other larger cluster with five sites, namely, Wat Po temple, Sri

Marriamman temple, Dusit Zoo, Singapore's Chinatown, and Siam City Park attraction sites.

The sites were managed by private or voluntary management regime, but management

practices were inadequate to prevent vandalism. The sites were characterised by inadequate

surveillance opportunities, poor activity support, limited attention to maintenance and

rehabilitation, and poor land use. The rating for site management properties was consistently

poor across all sites. The cluster was characterised by inadequate attention to prevention and

restoration intervention strategies. Widespread property damage signified poor management

practices. The cluster was also characterised by high presence of vandalism with three sites

classified as vandalised. Evidence of stakeholder participation was an important feature of the

cluster.

Lack of regular repair and routine rehabilitation is illustrated by the carving on the

tables and breakage of seats and benches in the picture composite in Figure 3.8. Old and

faulty public announcement system, water pollution, and absence of repair of the floor at the

entrance of the attractions present clear evidence of management malfunction. Poor activity

support forces visitors to sit on landscaping elements and damage wall painting by constant

handling resulting in large-scale property damage.
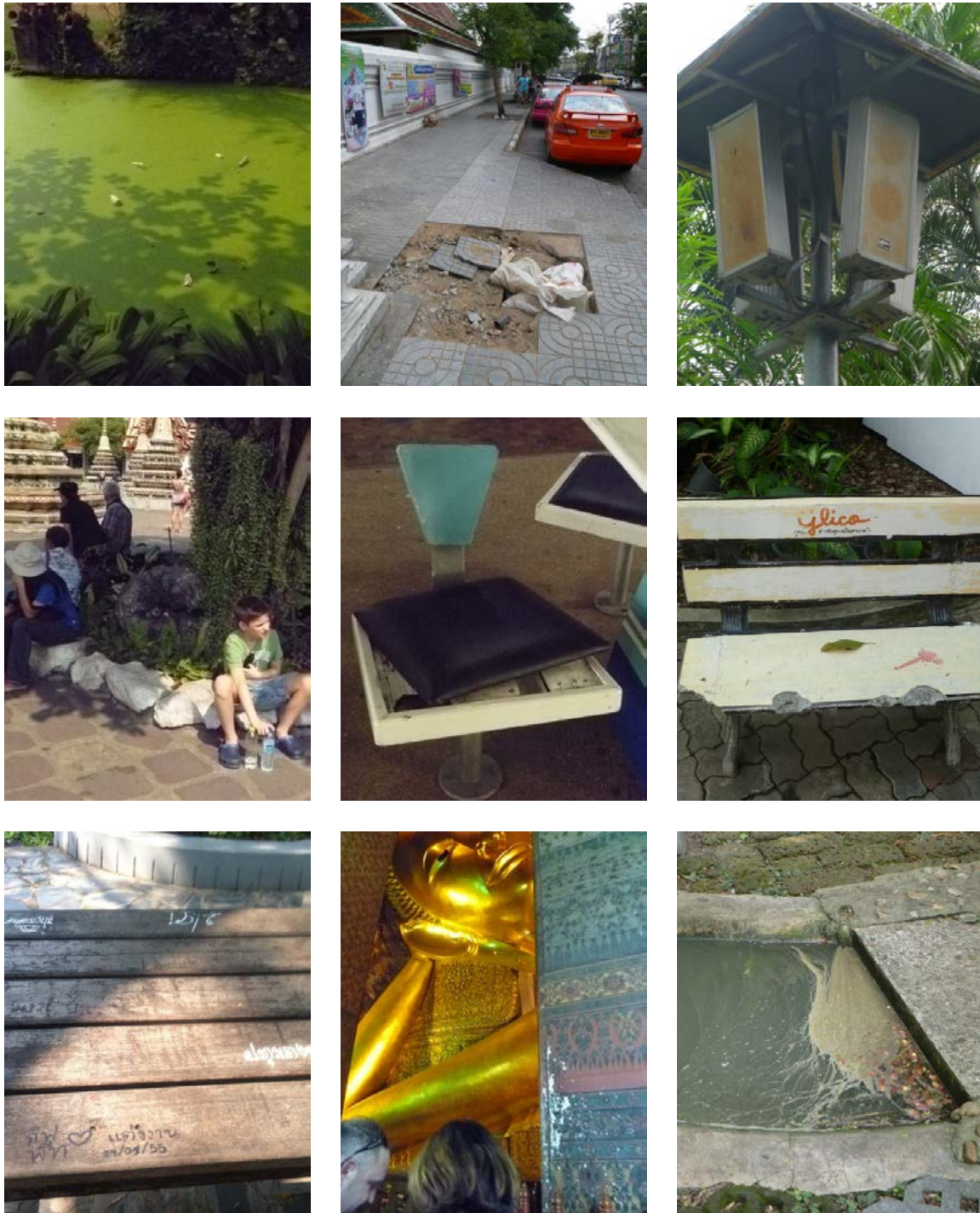
Figure 3.8. Images supporting the poor management group cluster

Cluster Four – Sustainable group

Jim Thomson Museum, Asian Civilization Museum, Marina Bay precinct, and Singapore Zoo sites make up the cluster, which was a contrast from the vandalised cluster and the remaining clusters. The sites are characterised by the highest positive ratings in image/management, stakeholder participation, and extent of vandalism. They exhibit very similar scores in territoriality, access control, activity support, target hardening, and overall impressions of land use. The cluster was characterised by a high degree of territorial claim, adequate access control measures, and target-hardening measures. The salient feature of the sites in the cluster was effective site management practices in activity support, involvement of stakeholders, and attention to maintenance and restoration. The cluster includes sites under private, public, and voluntary management regimes. There was very limited evidence of vandalism and property damage in the sites grouped in the cluster.

The picture composite in Figure 3.9 illustrates good practices in form of activity support such as necessary signage, adequate seating, relevant information, and facilities for visitors, which encourage desired behaviours. The images present evidence of stakeholder involvement, adequate surveillance, and routine maintenance, thus promoting sustainable tourism development.
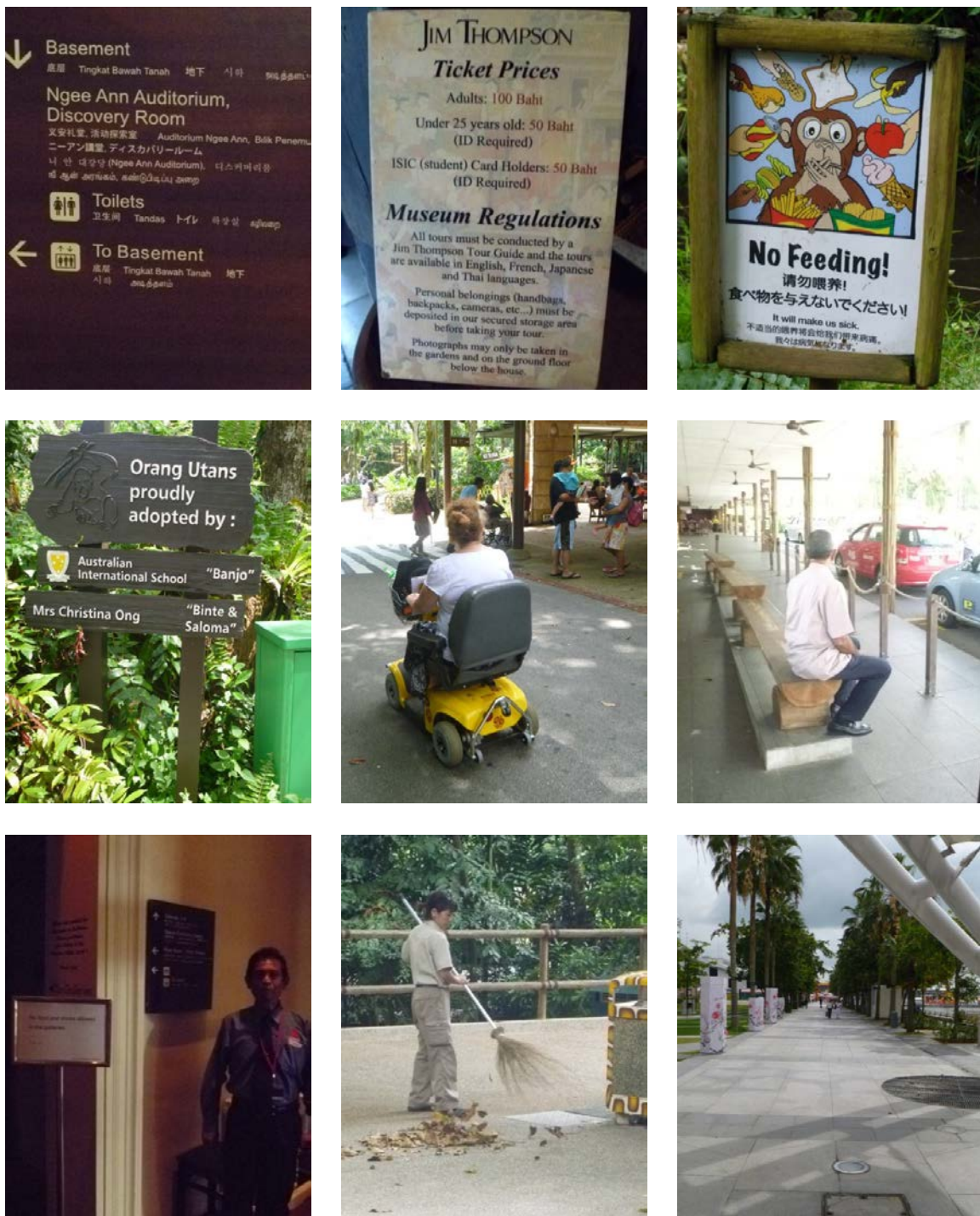
Figure 3.9. Images supporting the sustainable group cluster

Cluster Five – Vandalised group

The final cluster in this set of analysis comprised of Chao Phraya river precinct, Khaosan market, Pathum Wan area, and Chinatown Bangkok. The four sites are characterised by consistent low scores in surveillance, access control, activity support, image/management, target hardening, stakeholder participation, and extent of vandalism. The clusters report poor attention to physical setting of the property characteristics such as poor surveillance opportunities, poor access control measures, and lack of target-hardening measures. A similar trend was reported in the site management characteristics in terms of a lack of basic activity support, poor management, and absence of stakeholder involvement. There was an obvious lack of local government involvement as all sites in this cluster are under public sector management. None of the sites are under private management. The sites in the cluster were vandalised with extensive damage to property.

The picture composite in Figure 3.10 portrays widespread property damage at the sites within the cluster. There is evidence of vandalised signage, breakage in general, absence of repair and maintenance, and litter. The lack of stakeholder participation resulted in crowded walkways and encouraged visitors to exhibit less desirable behaviours. The sites in this cluster are most vandalised and least sustainable when compared to other clusters.
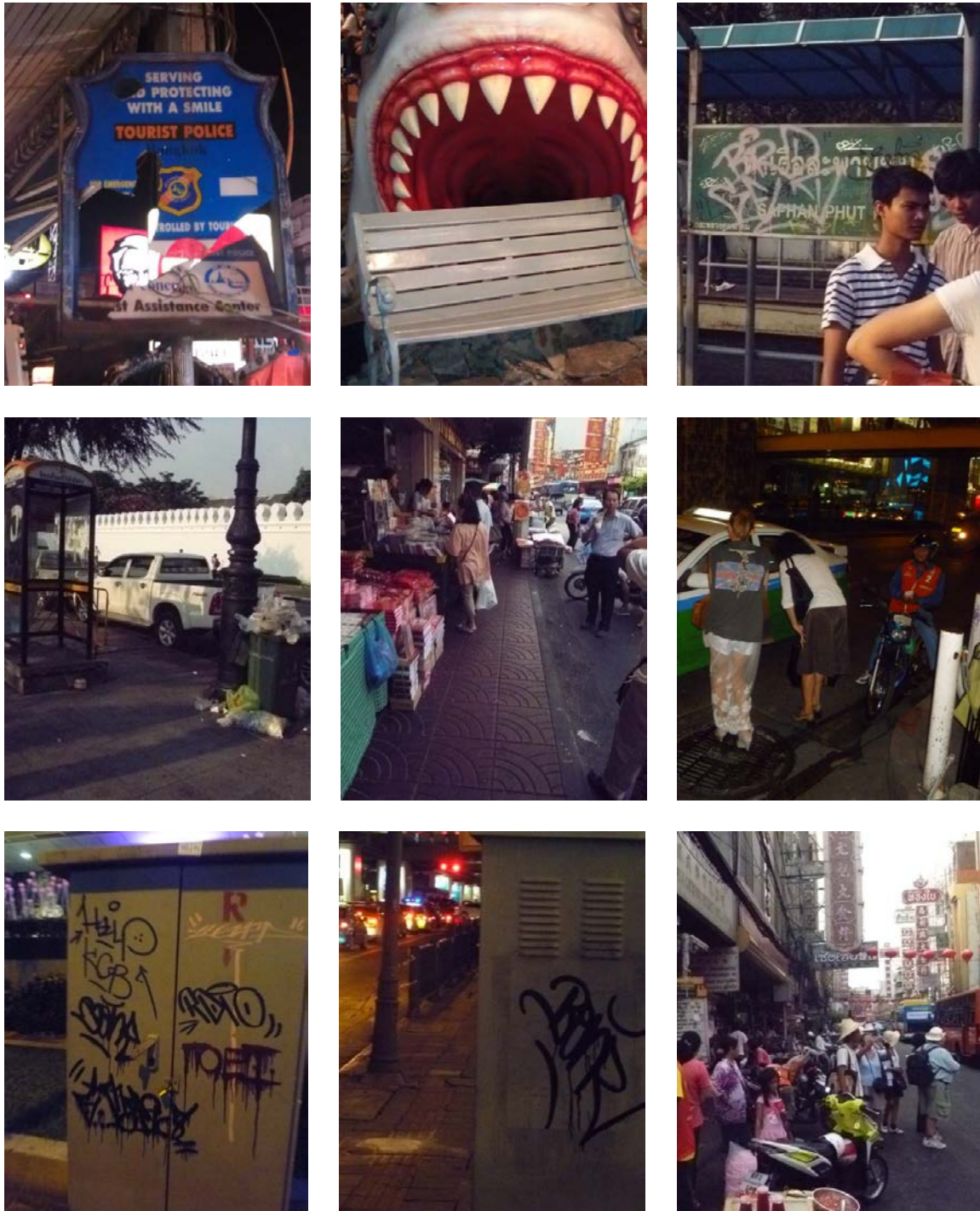
Figure 3.10. Images supporting the vandalised group cluster

The succinct case descriptions in section 3.4.1 and the clusters described in section

3.4.2 form part of the narrative of vandalism analysis in this study. The narratives are useful

in revealing treatment to each property of physical setting and in comparing and contrasting

sites in terms of presence of vandalism and site management. The results are followed by

discussion in the next section.

3.4 DISCUSSION

This section of the study offers some initial ideas. Considerable studies have been

done to explore the role of environment design in crime prevention, and the number of

studies is still growing. Newman's (1972a) work on *defensible space* highlighted the role of

physical environment in influencing deviant behaviour. Few studies, however, have focused

specifically on the relationship between the physical design properties such as territoriality,

surveillance, access control and target hardening and deviant behaviour (Crotts, 2011;

McCaghy, 2008; Owen, 2007).

This component of the research also identified a significant set of links between

vandalism (property damage) at the visitor attractions and the site characteristics in terms of

properties of the physical setting. The finding of the cluster analysis in this study are in

agreement with the wider view as the vandalized cluster discussed in the preceding section, is

characterized by inadequate consideration to the environment design elements. The sites

grouped in the specified cluster demonstrated poor attention to the use of physical properties

in guiding visitor behaviours at the attractions. In contrast, the sites in the sustainable cluster

represented environment design as a tool to manage visitors. Adequate measures ensured that

desired visitor behaviours were observed on attraction sites. The sites in the other three

clusters adopted a different approach to environment design, which reflected in poor attention

to specific element and resulted in vandalism at these sites. The nature of property damage

corresponded to the characteristics of the poorly performing property of physical design.

For instance, inadequate surveillance led to poor enforcement of rules in the poor

enforcement cluster. The large geographic setting and open access nature of poor

enforcement cluster presents challenges in providing adequate surveillance opportunities and

ways to ensure rapid repair and rehabilitation. (Glasson & Cozens, 2011) in their work on crime prevention through environment design (CPTED) and (Ekblom, 2011b) have stressed the deterrent value of surveillance. The absence of the perpetrator's perception of being monitored at the sites in poor enforcement cluster is instrumental in higher levels of property damage. Similarly, the lack of maintenance gives the perception of a 'soft target' and encourages deviant behaviour (Fyall & Leask, 2006; Leask & Fyall, 2006, 2008).

The role of environmental design is reinforced by site management practices and attention to reducing opportunities for crime. Evidence from empirical studies such as carving on tables (Samdahl & Christensen, 1985), the availability of alleyways and recessed doors for offenders to congregate or act (Owen, 2007), and the nature of an attraction can make it a hot spot for repeated damage (Roncek & Maier, 1991). The poor management cluster characterised by high vandalism is explained by the lack of management practices in reducing the perception of opportunity by offenders to damage property. The 'broken windows' theory (Katy, 2007) which theorizes that timely repair and maintenance of physical space discourages acts of vandalism, can be applied to the sites within the poor management cluster as presence of litter, graffiti, and defaced surface may serve as a symbolic facilitator for future transgressions.

Another important finding of this study was that the extent of vandalism was also related to the large variance in the activity support systems at attractions. The sustainable and the low involvement clusters recorded lower levels of property damage which can be attributed to encouraging visitors to participate in safe activities while discouraging involvement in unsafe activities or less desirable behaviours. Bhati et al. (2012) argue that visitor behaviours may result in unintentional outcomes such as property damage. Thus, information about safe/unsafe activities and negative outcomes of less desirable behaviours will guide visitors to have minimal negative impact on the attraction. On the other hand, the

lack of activity support systems increases the chances of occurrence of vandalism. A similar perspective has been recorded in the literature where travel related stress and environmental learning in an unfamiliar setting has been linked to visitor behaviour (Guy, Curtis, & Crotts, 1990; Zehrer & Crotts, 2012).

Further possible explanation may be derived from past research labelled, respectively, enjoyment theory (Offler et al., 2009) and aesthetic theory (Greenberger & Allen, 1978) which both stressed better understanding of behaviour by relating it to enjoyment and pleasure seeking behaviours. Thus, activity support mechanisms at attractions could consider visitor motivation and behavioural outcomes more closely in devising systems to guide behaviours.

The final factor that needs to be explained is the stakeholder involvement in management of visitor attractions. Arguably, in absence of a broad literature in stakeholder involvement, especially community engagement, in attraction management within tropical South-East Asia, this study extends the findings from predominantly Western studies to this region (Jafari, Fuat Fırat, Ahmet Su¨erdem, Søren Askegaard, & Dalli, 2012; Robin, Stephen, & Haywantee, 2013; Xiao & Smith, 2006). Lack of active participation of primary stakeholders explains the presence of vandalism in the vandalised cluster and the poor involvement cluster (Fyall, Leask, & Garrod, 2001; Garrod, Fyall, Leask, & Reid, 2012). The literature reveals the need for an inclusive approach to involve diverse groups and individuals in visitor attraction planning and development processes (Hetherington et al., 1993; Nepal & Lu, 2009; Paskaleva-Shapira, 2007). The absence of collaborative arrangements between the site management, legislative authorities and the local community results in indifferent attitudes towards deviant behaviour and property damage at the attractions, thus threatening sustainable tourism development (McCool & Moisey, 2008; Pizam & Mansfeld, 1996).

3.5 CONCLUSION

The aims of this chapter were to identify common and noteworthy characteristics of visitor attractions from a range of succinctly presented cases and clusters. These common and noteworthy characteristics were then linked to the existing literature. The focus on extent and nature of vandalism at attractions in this chapter refers to visitor acts and behaviours at the physical setting of the attractions. Examples being examined include graffiti, carving on surfaces, litter, defacing statues and artifacts, damage to public toilets, public property, damage to private property and damage to natural environment. Basing the approach on comparative work which also uses multiple cases to explore diverse phenomenon, a selection of 22 cases was made. The cases chosen were structured according to a priori criteria specifically identified for the purpose of this research project. The cases presented include comparative examples representing different visitor activities in Singapore and Bangkok.

This chapter began by presenting the rationale for the research study and the four main research questions guiding the study. A discussion of the procedure adopted to select the attraction sites for fieldwork sites of this research project was reviewed. The next section of this chapter specifically described the research instrument employed in this study. The audit check-sheet was constructed on the basis of a review of current literature and systematic procedure to ensure instrument reliability and validity.

The general methodology employed in this physical audit study was reviewed next. In a survey of leading tourism journals between 1984 and 2010, Robin et al. (2013) and team concluded that qualitative and mixed methods emerged as a growing methodology in tourism in recent times. In line with the trend, this study adopted a mixed method approach with both quantitative (cluster analysis) and qualitative (descriptive narrative) procedures. As a result of the pilot study conducted in Singapore and Bangkok, modifications were made to the data collection procedures to minimise rater bias. The changes made to the observation check-

sheet were minimal. The results and discussion section included a commentary on the

descriptive narrative of each site and a review of the attraction sites with the help of a cluster

analysis to group the sites into five clusters on the basis of homogenous characteristics to

provide a detailed analysis of the presence and nature of vandalism (property damage) by

visitors at the sites (Crotts & Pan, 2007). Picture composites were used as supporting

illustrations to inform the description of clusters (Rakic & Chambers, 2009).

The findings confirmed that the widely considered properties of vandalism/property

damage are applicable to tropical Asian context presented in Singapore and Bangkok. The

study considered the properties of the physical setting to arrive at a better understanding of

influences on deviant behaviour and current behaviour management practices. Though the

findings provide a comprehensive analysis of the phenomenon studies, it does not consider

local considerations and explanations of behaviours. The study extended the current literature

by arguing for the importance of environment design, management practices, and stakeholder

involvement in ensuring sustainable development of visitor attractions.

The next chapter discusses the community survey undertaken as part of study 2. It

then presents and discusses the findings obtained from study 2. To be more specific, chapter

4 compared community responses in Bangkok and Singapore. Psychographic variables such

as the severity index and optimists/pessimists index were constructed to analyse, community

attitudes towards vandalism, the effectiveness of their current involvement is in, initiatives to

address vandalism, and to explore the desired involvement types helpful in designing future

intervention strategies.

CHAPTER 4

COMMUNITY SURVEY – PUBLIC RESPONSES

4.1 INTRODUCTION

A key objective of this thesis is to discuss and analyse stakeholder responses to property damage at visitor attractions. In order to achieve this objective, this chapter surveys the views of communities near visitor attractions and analyses their perceptions about property damage. A core part of this assessment is measuring the level of current involvement and their desired levels of participation in managing property damage at these sites. Further, the community perceptions towards joint stakeholder action to develop strategies in managing tourist attractions and reducing property damage are also considered.

This study extends the discussion initiated in the preceding chapter, wherein a physical audit was commissioned to log property damage and stakeholder participation in tourist attractions.

This chapter reviews the application of a community survey to identify, record, and analyse perceptions and attitudes of stakeholders, in particular the community, in managing property damage at tourist attractions. The stakeholder approach, as defined in chapter 1, identifies individuals with the ability to influence property damage in tourist attractions. These individuals are also those most severely affected by the outcomes of property damage.

In this study, the stakeholder community within a one-kilometre radius of a particular tourist attraction was identified as the local community. This definition included residents and businesses. As the local community can influence the success or failure of a particular tourist attraction and the larger tourism industry, it is suggested that their attitudes need to be analysed to develop future strategies to control property damage. It is appreciated that there is often a wider community of interest with a concern for the state of a country's tourist attractions. While recognising this kind of connection, the present study explores the possibility of the community of interest being those who can play a direct role in surveillance, local ownership, and monitoring of the attraction. The definition of one-kilometre radius is hence a workable but tangible solution to the issue of selecting the community.

It has been recognised in the literature that sound management of tourist attractions must incorporate the joint action of important stakeholders such as the managers of tourist attractions, government bodies, and the community (Laws, Richins, Agrusa, & Scott, 2011; Newsome & Moore, 2012; Pearce, 2005a; Sarkis, Cordeiro, & Vazquez Brust, 2010). The study of the attitudes, perspectives, and opinions of these stakeholders provides comprehensive information to understand views of property damage and confirm strategies adopted to develop sustainable practices in visitor behaviour management. A further and subsequent challenge noted later in this chapter lies in how to communicate the study

findings to the diverse stakeholders who make decisions pertinent to tourist attraction management (Pérez & Nadal, 2005).

A review of related literature reveals the use of several approaches to present these kinds of research data (Goodson & Phillimore, 2010; Sirakaya-Turk, Uysal, Vaske, & Hammit, 2011). For instance, demographic descriptors such as age groups, gender, residential status, socio-economic status, and education levels are useful indicators to describe opinion. Psychological profiles together with quantitative analysis techniques are also useful in producing classifications of observable and easily measurable characteristics of individuals and groups. This study develops an approach beyond the use of single demographic descriptors and single psychological profiles to describe the study findings. It employs constructed psychographic profiles as the primary communication strategy. This strategy adopts an *a priori* approach rather than employing a single variable characterising attitudes (Pearce, 2005b; Pearce, 2009). The approach makes it possible to define individuals with the help of non-obscure labels. Current literature reveal that labels being used such as '*optimists and pessimists*' and *severity* are easy to assess and provide a simple meaningful approach to communicate findings (Gable & Handler, 2005; Richards, 2007). Importantly, these labels are derived from purpose-built questions in the questionnaire. They are not based for example on formal optimism-pessimism scales, which seek to measure overall perspectives and have a wider purpose but which do attract some criticism (Burke, Joyner, Czech, & Wilson, 2000; Scheier & Carver, 1987).

The next section outlines the methodology adopted to survey the local community of visitor attractions in Singapore and Bangkok. Figure 4.1 summarises the steps involved in conducting the community survey at part of study 2 in this thesis.

Pre-Questionnaire Preparation
- Review of relevant literature.
- JCU Human Ethics approval for the study.
- Approval from National Research Council of Thailand to conduct the study.
- Develop a list of research questions.
- List and select questions to be included in the questionnaire.
- Final 29 questions chosen to address the research aims of the study. The questions were organised into four sections in the questionnaire.
- Preparation of draft questionnaire and information sheet for the survey.

Consultation with Academics and Discipline Experts
- Discuss questionnaire with tourism researchers.
- Tourism researchers reviewed wording and sequencing of final questions.
- Incorporate suggestions.

Pilot Study
- Ensure procedures are being followed.
- Visit potential survey sites.
- Train research assistants in survey procedures (Singapore and Bangkok).
- Visit sites to distribute questionnaire and information sheets and review survey procedures.
- Discuss issues/problems in the survey process.

Revision and Review of the Questionnaire and Process
- Tourism researchers reviewed interview pilot study process and findings.
- Incorporate suggestions.
- Survey process, questions, and sequence of the questions revised as per suggestions.

Survey Questionnaire Translation in the Thai Language
- Native Thai research assistants translate the questionnaire into the Thai language.
- Tourism researcher in Thai University back translates questions into the English language.
- Questions revised as per suggestions.
- Train Thai research assistant in survey procedure.

Conduct Survey in Singapore and Bangkok, Thailand
- Pre-distribution check that ensure survey procedures are being followed correctly.
- Discuss issues/problems.
- Principal researcher and research assistants conduct survey at selected sites.
- Distribute additional questionnaire/information sheet.
- Pick up completed questionnaires.

Complete Survey at Each Site in Singapore and Bangkok

Figure 4.1. Steps involved in conducting study 2

4.2 RESEARCH AIMS (QUESTIONS)

As discussed in chapter 1, very little is known about the community attitudes towards, and their involvement in, initiatives to address property damage at visitor attractions in the tropical Asian settings of Bangkok, Thailand, and Singapore. The research questions of this questionnaire survey–based study derive from the thesis aims 1, 2, 3, 4, and 5, which are as follows:

Aim 1: To extend and explore the application of vandalism by visitors at visitor attractions in a tropical Asian (non-Western) context.

Aim 2: To examine stakeholder responses and their effectiveness in addressing vandalism.

Aim 3: To evaluate whether there are distinctive stakeholder sub-groups holding different attitudes towards vandalism and its prevention.

Aim 4: To compare stakeholder attitudes and perceptions towards vandalism and its prevention in future across two culturally, economically, and socially divergent but popular tourism destinations in Asia.

Aim 5: To identify best practices in vandalism prevention and future research direction in the context of sustainable tourism practices.

In an attempt to explore the tropical Asian vandalism phenomenon and deriving from the main thesis aims, the specific questions of this study include the following:

What is the effect of types of property damage and location on perception of vandalism? This specific question responds to thesis aim 1 and 2. It will be achieved by construction of severity index based on data from section 1 in the questionnaire. Statistical procedure will be used to analyse community attitudes towards vandalism.

What is the relationship between psychographic profile (optimists and pessimists), time orientation (current and future), and location where property damage is experienced

(Singapore and Bangkok)? This core aim here is to identify differences in attitudes and perceptions of respondents as noted in thesis aim 4.

What is the relationship between the overall level of current involvement (individual, community, site management, and local authorities) and the levels of effectiveness of actions of the same stakeholders? This question will be addressed in section C of the questionnaire and is connected with thesis aim 3.

What is the effect of the psychographic variables (severity and optimists/pessimists) and the factor of location (Singapore and Bangkok) on the desired level of community involvement/roles? This question will be addressed in section D of the questionnaire and is connected with thesis aim 5. It provides highly relevant and systematic information to investigate future willingness of the community to be involved in vandalism-related initiatives.

It can be noted that the thesis aims explored in this study overlap with the aims examined in the physical audit study in chapter 3. The difference is that they are working at different levels and addressing different issues to achieve comprehensive coverage of the aims of this thesis.

The first research question attempted to measure community awareness of property damage. It seeks to reveal the local community's opinion regarding property damage as being a problem or not. It also endeavours to identify acts of property damage in order of importance. Two-way and one-way ANOVA are employed to measure the effect of property damage types and location on vandalism. The study attempts to identify significant differences in levels of property damage in Singapore and Bangkok. The additional aim of the first question was to measure the effect of location (Singapore and Bangkok) on the severity index and assess whether community attitudes towards vandalism and property damage varied based on location.

For the second question, two linked questions are used to classify respondents as optimists or pessimists. This distinction is the second psychographic variable of importance in this chapter. Community perceptions related to attitudes towards property damage and its relationship to their place of residence, i.e., location (Singapore and Bangkok) are explored in the third objective that analyses the optimists/pessimists classification.

The third research question explored the relationship between current actions and their effectiveness in controlling property damage. The effectiveness of actions of the local community, site management, local government, and the respondents' involvement are analysed in this section. Current practice and the scope of joint action between the stakeholders are also reviewed in this section. The regression analysis between a current action index and on effectiveness of action index is performed to reveal relationships between these variables.

The final question asks the respondent to identify their desired level of involvement in addressing property damage. Attempts are made to explore relationships between the desired level of involvement and community attitudes and demographics.

The four research questions as outlined are pivotal in seeking a comprehensive discussion of community attitudes and involvement in addressing property damage at visitor attractions. This study provides a key link in the thesis and its aims to evaluate stakeholder responses to property damage. The emic approach adopted in this chapter investigates the perceptions and attitudes of the local community. It reveals how the community constructs reality, derives meaning, and how these perceptions guide their behaviour related to property damage (Goodson & Phillimore, 2010).

The physical audit employed in the previous chapter revealed the extent and nature of property damage at visitor attractions in Singapore and Bangkok. The methodology clustered tourist attractions according to their strengths and weaknesses in site properties related to

property damage. These elements were territoriality, surveillance, access control, target

hardening, activity support, and maintenance and stakeholder participation. The findings

from the community survey extend the discussion of the physical audit in terms of

community perceptions, attitudes, and involvement in elements identified in the previous

statement.

4.3 METHODOLOGY

For the purpose of this research, a personally administered questionnaire was

employed to survey the community at designated visitor attractions in Singapore and

Bangkok, Thailand, between August 2012 and February 2013. Before the survey was

administered, approval from the Human Ethics Committee at James Cook University was

obtained. The ethics approval number is H4139 (see appendix H). The survey was aimed at

those living/working close to the tourist attractions. As noted previously individuals in this

zone have a potential for direct surveillance and participation in management. Twenty-two

visitor attractions, eleven each in Singapore and Bangkok, were selected for this research. It

should be noted that the visitor attraction sites sampled in the physical audit study in the

preceding chapter were again used in this study. This enabled the researcher to focus on

attitudes and responses of stakeholders at these sites to link components of the research. The

respondents were randomly selected from the pool of residents and businesses within a one-

kilometre radius of the visitor attraction.

A total of 300 respondents were approached in each country, resulting in an overall

attempt to sample 600 respondents. The researcher employed random sampling method and

every third resident or businessperson within one kilometre of the sites was approached to

complete the survey. A total of 190 questionnaires were received in Singapore, of which 168

valid questionnaires were used for the study, and 252 questionnaires were received in

Bangkok, of which 225 valid questionnaires were included in the study. These questionnaires

represent a 56% and 75% response rate, respectively. Overall the response rate for the survey was 65.5% with a total of 393 responses. While the sample provided a comprehensive coverage of community respondents in tourist attractions, it is understood that it remains indicative rather than representative of the wider population of Singapore and Bangkok.

4.3.1 Statistical analysis

Key statistical procedures from the Statistical Package for Social Sciences (SPSS), also known as PAWS software, were used to analyse the data. The data analysis involved descriptive statistics to outline the respondent profile. Respondent perceptions and attitudes towards various acts of property damage were analysed with repeated measures ANOVA using a linear mixed model. The Sidak post-hoc test method was used to undertake the pairwise comparisons and to explore significant differences between community perceptions towards property damage and vandalism. Sidek test provides adjusted p-values and guarantees strict control of family wise error rate during independent comparisons (Babbie, 2013).

A t-test for independent samples for the Singapore and Bangkok location with the severity index as the dependent variable was used. Similarly, a t-test was performed using the optimist versus pessimist classification (independent variable) with severity as the dependent variable. Additional separate t-tests measured the effect of the optimist - pessimist variable and the severity variable as the independent variables with the respondents' desired level of participation as the dependent variable.

Additionally, Pearson's chi-square tests were performed to measure the relationship between community attitudes (optimists/pessimists), time orientation (current and future), severity (not a problem and major/minor problem), and location (Singapore and Bangkok). The relationship between current level of involvement (current actions) and the effectiveness of the actions was measured using Pearson's correlation co-efficient.

Table 4.1 *Research questions and statistical analysis*

Research Question	Statistical analysis
What is the effect of types of property damage and location on perception of vandalism?	Two-way repeated measures ANOVA One-way repeated measures ANOVA
What is the relationship between psychographic profile (optimists and pessimists), time orientation (current and future), and location where property damage is experienced (Singapore and Bangkok)?	Chi-square Optimists/Pessimists (current/future) within location Chi-square Optimists/ Pessimists (current/ future) between location Chi-square Optimists/Pessimists current and Optimists/Pessimists future
What is the relationship between the overall level of current involvement (individual, community, site management, and local authorities) and the levels of effectiveness of actions of the same stakeholders?	Standard multiple regression analysis of the current involvement index and effectiveness of involvement
What is the effect of the psychographic variables (Severity and Optimists/Pessimists) and the factor of location (Singapore and Bangkok) on the desired level of community involvement/roles?	*t*-test desired level of involvement in between location (Singapore or Bangkok) *t*-test severity and desired level of participation *t*-test optimists/pessimists and desired level of participation

4.3.2 Psychographic variables

A key measure of interest in this study is the assessment of a *perceived severity* index. This measure provides a cumulative score of the community perception of property damage as a problem. A second measure that identifies optimists and pessimists is also a construct of interest. Following the literature, this measure was seen as potentially having a powerful explanatory role in this research. The operational definitions used to define the perceived severity index and the optimists/pessimists labels are discussed below.

4.3.2.1 Perceived severity

Respondents were asked to give their opinion related to the severity of various acts of property damage at the visitor attraction. They were asked to classify each act of property damage as a major problem, minor problem, or not a problem. The relevant question stated:

Would you say the following acts of property damage are a major problem, minor problem, or not a problem at the attraction? (Major problem, minor problem, not a problem)

Individuals who had a mean score of 2 as an average rating for all acts of property damage regarded property damage as a problem at the visitor attraction in their community. The index is calculated over a 3-point scale (*Major problem = 3; minor problem = 2; and not a problem=1*) across the eight acts of vandalism (*graffiti, carving, litter, breakage, defacing, public property damage, private property damage, damage to natural environment*). The rating is a mean value across actual responses. For instance, a respondent with only five responses out of eight categories but who rates each item at the maximum level recorded 15 points and an average of 3.

4.3.2.2 Optimistic and pessimistic attitudes

In order to construct the optimists/pessimist framework, respondents were asked two-paired questions about their overall orientation towards property damage at visitor attractions. The relevant questions were as follows:

Compared to the current level of property damage at _____ attraction, do you feel the damage one year ago was:

Much less, little less, worse, not sure.

and,

Compared to the current level of property damage, do you think the attractions site will be changed in terms of the incidence of property damage in the next two years?

Much better, little better, worse, not sure

Optimism can be defined as a set of beliefs that leads people to approach the world in an active manner. Optimistic individuals have demonstrated higher levels of motivation, persistence, and performance. On the other hand, pessimistic individuals tend to look at the world and future experiences in a negative fashion. Pessimists view the world as a place of bad experiences, events and hold a negative future outlook (Burke et al., 2000). For the purpose of this project, individuals who responded that either the historic level of property

damage was less than the present situation and/or who felt the future levels of property

damage would worsen were defined as pessimists. By way of contrast, optimists were defined

as respondents who felt that historic damage was worse compared to current levels of

property damage or those who anticipated lesser incidences of property damage in the future.

4.3.3 Research instrument: Questionnaire

The questionnaire was developed on the basis of a review of the literature on survey

methodology. According to (Baggio & Klobas, 2011), when constructing a questionnaire the

two key principles are, 1) avoid confusion and 2) keep the respondents' perspective in mind.

The researcher should recognise the influence of the *content* and the *format* of the

questionnaire in the data collection process (Fowler, 2009). Most authors advocate the use of

open- and close-ended questions as both question types have merits in ensuring the relevance

of data collected (Babbie, 2013; Baggio & Klobas, 2011; Dann, Nash, & Pearce, 1988;

Dwyer et al., 2012). While open-ended questions can be time-consuming for respondents,

they are useful in seeking fresh perspectives. On the other hand, close-ended questions are

more specific and helpful in obtaining predetermined information from given alternatives.

The questionnaire employed for the survey consisted of twenty-nine questions with

four major sections. Refer to appendix D for a copy of the questionnaire. The close-ended

questions in the questionnaire employed a scale with ordered choices. Three full-colour

pictures of acts of property damage such as litter, graffiti and breakage were provided on the

first page. Care was taken to ensure that the questionnaire used in Bangkok and Singapore

had pictures taken at visitor attractions from the respective locations. A survey of the

literature revealed good examples of the use of photographs as a research instrument in

drawing attention and providing focus to the research study (Berg, 2004; Collier, 1967;

Lincoln et al., 2011; Rakic & Chambers, 2012). The pictures provided a context for the

respondents to the vandalism /property damage phenomenon at the attraction sites. The

feedback from the pilot study confirmed that the pictures provide a focus in directing attention to forms of property damage analysed in the study.

The first section recorded the respondents' (local community) attitude towards property damage. The second section addressed the current actions of the local community and its effectiveness in addressing property damage. The next section focused on the respondents' desired level of personal involvement in addressing property damage at the tourist attraction. The fourth and final section sought information about the demographic characteristics of the respondents.

4.3.4 Questionnaire translation

The questionnaire consisted of close-ended and open-ended questions. It was first developed in the English language and later translated into the Thai language. The translation was an important activity as most respondents were not conversant in the English language. Moreover, it was vital to ensure that the translation process did not dilute the intended objective of the survey. The researcher employed the help of a professor in a university in Thailand, who was also a native speaker for the translation process. She assisted by translating the English questionnaire into Thai. Two postdoctoral students, one each in Bangkok and Singapore, were then asked to back translate the Thai questionnaire into English. Both students were native Thai speakers pursuing an education in English. The translated questionnaires were compared with the original version and relevant changes were made in the Thai questionnaire to reflect the same meaning (Bernard, 2013; Del Greco, Walop, & Eastridge, 1987; Mark, Gabrielle, Claudia, Giuseppe la, & Gabriel, 2009). The questionnaire in the Thai language and the English language are included in appendix E and appendix E, respectively.

4.3.5 Pilot study

The final draft of the questionnaire was shared with several tourism and social science researchers who were asked to review the wording and sequencing of the questions. This exercise was completed both before and after the pilot test. Pilot test findings and suggestions were taken into account while revising the questions. The pilot study was conducted by sampling the local community of two visitor attractions each in Singapore and Bangkok, respectively. The data from the pilot study were recorded in SPSS format to assess the functionality of the survey instrument (Bernard, 2013; Harkness, 2010). The responses received from respondents in Bangkok and Singapore were that the questionnaire was successfully completed and without obvious problems, thus justifying the further use of the instrument. The questionnaires were then prepared and commissioned for the actual survey. The next section outlines the steps in establishing reliability of the variables constructed based on the questions from the questionnaire.

4.3.5.1 The analysis of the reliability of variables (measurements)

Table 4.2 lists the variables (measures) created to analyse the data collected from the survey of the community. These variables were constructed based on the responses to select questions. The full questionnaire is provided in appendix E for reference.

Ascertaining the reliability of the measurement is the first step in assessing the quality of the measurements (Babbie, 2010,2013) . The reliability function in SPSS 20.0 was used to calculate the value of Cronbach's alpha coefficient. The test provided a measure of the internal consistency of the measurements under review. Calculating consistency of the multiple-item measures of a concept or construct is a good practice to strengthen quality of the research project.

In Table 4.2, Cronbach's alpha for the 8-item construct severity of property damage as a problem in question 4 of the questionnaire was 0.66. This can be considered adequate for

research purposes. Similarly, the optimist and pessimist variable was computed using the

responses of paired questions 8 and 9 in the questionnaire. The Cronbach's alpha for this

variable was 0.62, which is also within the acceptable range. These claims are based on the

literature review wherein Cronbach alpha value less than 0.6 (<0.6) is considered poor

(George & Mallery, 1999; Matkar, 2012; Mohsen & Reg, 2011). The alpha values of other

measurements are reported in table 4.2.

Table 4.2 *Reliability of variables (measures) using Cronbach's alpha*

Variable (measure)	M	SD	A
Perceived severity	25.48	8.09	0.66
Graffiti			
Carving on surfaces			
Litter			
Defacing statues/artefacts			
Breakage in toilets			
Breakage of public facilities			
Breakage of private property			
Damage to natural environment			
Optimist and pessimist attitude	4.94	1.80	0.62
Compared to the current level of property damage, do you feel the damage one year ago was:			
Compared to the current level of property damage, do you think the incidences of property damage will change in the next 2 years:			
Personal Action Index	18.22	3.01	0.61
Personally intervene to check property damage			
Inform enforcing agents such as security guards and police			
Participate in social intervention			
Talk about the problem with other residents			
Do not feel responsible for the property damage			
Specify your other forms of involvements			
Community Action Index	16.24	2.61	0.81
Public relations campaign			
Form a task force together with attraction management			
Organise public lecture or education program for residents			
Informal volunteer group to check property damage in attractions			
Specify other community involvements			

Site Management Action Index	25.09	3.37	0.83
Improve design of physical setting to provide guardianship			
Employ security personnel and staff to provide surveillance			
Deploy mechanical surveillance			
Provide adequate signage and information for visitors			
Routine maintenance of attraction amenities			
Protection of artefacts and property			
Local Authority Action Index	24.51	3.72	0.88
Improve design of physical setting to provide guardianship			
Employ enforcing agents such as tourism police and security guards			
Deploy mechanical surveillance			
Provide signage and information centres			
Routine maintenance of public facilities			
Improve land use around the attraction			
Desired Involvement Index	38.13	6.40	0.91
Be the champion of site management			
Assist in site management			
Contribute as a committee member on regular basis			
Supplement decision making			
Participate in discussion and feedback sessions			
Educational and support building			
I want to participate in reducing vandalism			
I want the local council/government to assist me in managing vandalism			
I want to be involved in a community initiate to manage vandalism			
I feel I can help the site management to managing property damage			

The analysis of the remaining measurements is as follows. The 6-item personal action index derived from data of question 13 showed an acceptable Cronbach's alpha value of 0.61. The community action index showed strong Cronbach's alpha value of 0.81, which was based on the 5-item question 15. The Cronbach's alpha value for the 7-item site management action index was 0.83. The local authority action index showed a strong Cronbach's alpha value of 0.88, while the desired involvement index was the most reliable variable with the 0.91 Cronbach's alpha rating. The local authority action index was based on a 6-item question 19, while the desired involvement index included 10 items from question 23 and 24

in the questionnaire. In summary, the seven variables (measures) constructed for analysis in this chapter showed adequate reliability for research purposes (Coakes, 2013).

4.3.5.2 The analysis of coherent structure of the variables (measures) using exploratory factor analysis

Having established the reliability of the variables, exploratory factor analysis was considered to investigate the coherence of underlying structure of the measurements within a variable. Used in this way, factor analysis is helpful in determining measurement construct coherence (Tjong, 2006). The measurements listed in table 4.3 were constructed and employed to assess community attitudes towards property damage / vandalism. Data collected from 393 participants from Singapore and Bangkok were subjected to varimax rotation factor analysis. The tests were performed using SPSS 20.0 to ensure coherence of the various measurements for research purposes. Six factor analyses were conducted.

The factor analysis on the optimist and pessimist attitude measurement produced single factor loading of the items included in the test. This finding suggests that the measurements on the optimist and pessimist attitude variable contribute to the same factor, in other words, are consistent. Thus, single factor loading suggests adequate coherence of the optimist and pessimist attitude measurement. Similarly a single factor loading was observed for the personal action index, community action index, site management action index, local authority action index, and desired involvement index, thus, it was concluded that the various items of the respective measurements contributed to a single factor, thus, were consistent and suggested adequate structure coherence. Table 4.3 provides the details of the factor analysis and loading coefficient for each item.

Table 4.3 *Measurement (variables) coherence using factor analysis*

Measurement (*variable*)	Factor 1
Optimist and pessimist attitude	
Property damage a year ago	.851
Property damage in two years	.851
KMO=.60; C^2= 83.3; *df*=1; Sig=.01; % Var= 72.4	
Personal Action Index	
Personally intervene	.730
Inform enforcing agents	.754
Participate in social intervention	.815
Talk to other residents	.736
KMO=.75; C^2=349.63; *df*=6; Sig=.01; % Var= 57.7	
Community Action Index	
PR campaign	.813
Form a task force	.844
Public lecture and education	.815
Volunteering	.729
KMO=.76; C^2=520.70; *df*=6; Sig=.01; % Var= 64.2	
Site Management Action Index	
Provide guardianship	.705
Human surveillance	.701
Mechanical surveillance	.670
Signage and information	.756
Routine maintenance	.785
KMO=.85; C^2= 722.89; *df*=15; Sig=.01; % Var= 54.4	
Local Authority Action Index	
Provide guardianship	.753
Deploy enforcing agents	.780
Mechanical surveillance	.746
Signage and information	.838
Routine maintenance	.800
Improve land use	.791
KMO=.87; C^2=1048.64; *df*=15; Sig=.01; % Var= 61.7	
Desired Involvement Index	
Be a site champion	.669
Assist in site management	.708
Committee member	.806
Involve in decision making	.787
Give feedback	.755
Support initiatives	.776
Participate in reducing damage	.757
Want local authorities to assist	.634
Involvement in community action	.692
Help site management	.773
KMO=.88; C^2= 2218.09; *df*=45; Sig=.01; % Var= 69.1	

KMO=Kaiser-Meyer Olkin Measure of Sampling Adequacy; Barlett's test of Sperificity: C^2, df and Significance; % Var= % of Variance.
Source: Analysis of survey data ; Using a 5 Point Likert scale

The back translation of the questionnaire for the Thai to the English language, the pilot study, the reliability test, and the internal coherence of measurements test, all ensured robustness of the survey instrument and the survey procedure to achieve the study aims. The next section outlines the respondent profile of the community survey.

4.4 RESPONDENT PROFILE

This section profiles the respondents of the survey in Singapore and Bangkok. Individuals from the local community within one-kilometre radius of the visitor attractions in Singapore and Bangkok were identified as the sample for this study. Respondents from the two locations were included in the sample.

4.4.1 Respondent appraisal

The key demographic details about respondents are reported in Table 4.4. The sample consisted of a greater number of females (58%) than males (42%). Young adults in the age range of 22–35 years constituted nearly half of the total sample with 47%. Respondents in the age group of 36–50 and under 22 years formed the next significant cohort with 25% and 21%, respectively. The two location specific samples were very similar in terms of gender distribution. Senior members of the community above 50 years of age represented a very small proportion (6%) of the sample. The results of Pearson's chi-square show a significant relationship between the age groups in Singapore and Bangkok (chi-square = 26.85, *df:* 4, p < .001). In terms of annual income, about two-thirds of the sample (63%) consisted of individuals who had allocated themselves to the middle income group. Only 6% of the respondents were from low income group.

The respondents in the survey were diverse in terms of their occupational status. While 60% of the total respondents were employed by others, another 14% described themselves as self-employed, while 15% of the respondents were without work. The majority of respondents in Singapore (n = 97, 72%) were employed full-time or on a part-time basis.

The chi-square test result (chi-square = 20.07, *df*: 5, p < 0.001) indicates a significant relationship between the occupation distribution between Singapore and Bangkok. Similarly, the businesses participating in the survey were diverse in terms of their primary clientele highlighting their equal dependence on visitors and customers form the local community. A significant proportion (n = 47, 24%) of businesses around the tourist attractions did not depend on the local community. Lastly, respondents who have been in the local community for at least 3 years accounted for 59% (n = 163) of the sample with only 14% being there for less than one year. The results of the chi-square show a significant relationship between the length of business/residence in Singapore and Bangkok (chi-square = 35.32, *df*: 3, p < .001). A visual and quantitative summary of the respondent profile is presented in Table 4.4 below.

Table 4.4 *Key demographic descriptors of the survey sample*

	Singapore		Bangkok		Overall	
	N	%	N	%	N	%
Gender						
Male	70	43.2	86	38.4	156	42
Female	92	56.8	136	61.6	230	58
Overall	162	100	222	100	386	100
Age group[**]						
Under 22 years old	37	22.4	46	20.4	83	21.28
22–35 years old	98	59.5	87	38.7	185	47.44
36–50 years old	24	14.5	75	33.3	99	25.38
51–65 years old	5	3	17	7.6	22	5.64
Above 65 years old	1	0.6	0	0	1	0.26
Overall	165	100	225	100	390	100
Annual income group						
High income group	55	36.2	59	26.9	114	30.73
Middle income group	87	57.2	147	67.2	234	63.07
Low income group	10	6.6	13	5.9	23	6.2
Overall	152	100	219	100	371	100
Occupation type[**]						
Employed full-time	68	50.7	80	37.7	148	42.77
Employed part-time	29	21.7	31	14.6	60	17.34
Self employed	13	9.7	37	17.5	50	14.45
Retired	0	0	1	0.5	1	0.29
Homemaker	4	3	30	14.2	34	9.83
Unemployed	20	14.9	33	15.5	53	15.32
Overall	134	100	212	100	346	100
Nature of business[*]						
Catering to tourist/visitor customers	15	20.5	32	26.6	47	24.35
Catering to local community customers	12	16.4	33	27.5	45	23.32
Catering to visitors and local customers	31	42.5	23	19.2	54	27.98
Business not dependent on local customers	15	20.6	32	26.7	47	24.35
Overall	73	100	120	100	193	100
Length of business operation/ accommodation[**]						
Less than one year	19	19.6	20	11	39	14.03
Between 1 and 3 years	41	42.3	35	19.3	76	27.34
Between 3 and 5 years	26	26.8	48	26.6	74	26.62
More than 5 years	11	11.3	78	43.1	89	32.01
Overall	97	100	181	100	278	100

[*]There is a significant statistical difference (chi-square test $p < .05$) between Singapore and Bangkok.
[**]$p < .001$

4.4.2 Perceived severity index and optimists/pessimists label

The construction of the perceived severity and the optimist/pessimist psychographic variable was the next step in the data analysis. The statistical analysis undertaken to construct the variables is outlined in the following section.

4.4.2.1 Perceived severity
A perceived severity index ranging from 1 to 3 was constructed as an aggregate of responses by each respondent to eight categories of property damage. Since not all respondents had a response for all eight variables, the average of the available category scores was considered a more accurate measure of severity. It is noteworthy that the perceived severity index is a foundation approach in this thesis for understanding tourist perception of property damage as a problem. Table 4.5 explores descriptive statistics related to the community perceptions towards property damage as a problem by location followed by an overall summary.

Table 4.5 *Perceived severity index*

Category	Singapore				Bangkok				Overall	
	N	%	Mean	Std. Dev.	N	%	Mean	Std. Dev.	N	%
Not a problem	28	17.2			10	4.5			38	9.93
Major or minor problem	135	82.8	2.36	.570	210	95.5	2.57	.345	345	90.07

Table 4.5 reveals that the respondents in the Singapore and Bangkok surveys were diverse in terms of their understanding of property damage with 83% respondents in Singapore considering that property damage was a problem, major or minor. In comparison, 96% of the respondents in Bangkok were concerned about the problem of property damage. As evident from the statistics presented in Table 4.5, there was not a significant difference between perceived severity of property damage as a problem at visitor attractions in Singapore and Bangkok (M = 2.36, SD = .57 versus M = 2.56, SD = .34), respectively. The communities in both locations (N = 345, 90%) considered property damage at tourist

attractions to be a problem. The second psychographic variable, optimist and pessimist index, is discussed next.

4.4.2.2 Optimists/pessimists

To explore the distribution of optimists and pessimists more fully, Table 4.6 presents distribution by time orientation and location. Respondents are classified on the basis of current and future time orientation. In addition to the time track analysis of the respondents' attitudes, the data present another level of examination on the basis of location of the respondent. This comparison adds to the reach and implications of the study. Sixty-seven percent (n = 74) of respondents in Singapore maintain a pessimistic view of the current state of property damage at visitor attractions compared to the past. This was consistent with the high proportion (n = 116, 76%) holding a pessimistic view of the current situation in Bangkok. In contrast, 83% (n = 143) of the respondents in Bangkok were optimistic in terms of future prospects of property damage at visitor attractions. The Singapore sample was relatively conservative in terms of future optimistic expectations with 97 respondents representing this view (76%). Nonetheless, there is a between respondents in two locations. When the attitude towards property damage was compared between the two locations, it was observed that the number of respondents across the two locations showed a broadly similar pattern of optimists and pessimists.

Table 4.6 *Pessimists and optimists classified by location and time orientation*

	Singapore current orientation		Singapore future orientation		Bangkok current orientation		Bangkok future orientation	
	N	%	N	%	N	%	N	%
Pessimists	74	67.27	30	23.62	116	75.82	30	17.34
Optimists	36	32.73	97	76.38	37	24.18	143	82.66
Total	110	100	127	100	153	100	173	100

The following section cross-tabulates optimists and pessimists current and future orientation using the Singapore and Bangkok combined sample. Table 4.7 reports that of those who are currently optimist 32 (14%) remain optimistic about the future. Importantly,

154 (67%) of the current pessimists see the future as better, while only 17 (7%) see it as worse. This noteworthy finding reveals that community perceptions change significantly over a period of time. Appropriate set of strategies and responses could be instrumental in swaying public sentiments overtime.

Table 4.7 *Cross-tabulation to identify overall optimists and pessimists*

		Optimists and Pessimists Future Orientation	
		Optimists	Pessimists
Optimists and Pessimists	Optimists	32	26
Current Orientation	Pessimists	154	17

The following section presents the analysis of the five research questions in this study. The results and discussion pertaining to specified research question is reported in a paired presentation form.

4.5 RESULTS

The presentation of the research results follows the aims of the study. Each research question is followed by a discussion.

4.5.1 Results – Research question one

*Research Question: What is the effect of types of property damage and location on perceived severity of vandalism?*

Overview of the basic descriptive statistics

In the current study, 393 community members in Singapore and Bangkok were asked to rate their perception of severity on various types of property damage. The sample means of perceived severity of each type of property damage for Singapore and Bangkok are presented in Figure 4.2. The plot suggests that the perceived severity in Bangkok is consistently higher than that for Singapore. A scrutiny of Figure 4.2 indicate that some types of property damage such as graffiti, carving on surfaces, litter and defacing have a larger gap between the mean differences patterns in Bangkok and Singapore, whereas property damage types: breakage in toilets, damage to public property, damage to private property and damage to natural

environment have similar mean difference pattern in both locations. Figure 4.2 further reveals that litter is considered as most severe form of property damage in both countries.

Two Way ANOVA

To further explore how the effect of types of property damage and location influence the perceived severity of vandalism in a more solid way, a two-way ANOVA was conducted. The types of property damage had eight categories and location has two categories (Singapore vs Bangkok). The rating of severity is a 3-point scale (1 = not a problem; 3 = major problem). Mixed model is employed because one of the variables "types of property damage" is a repeated measure – that is, each respondent gave responses for each type of property damage.
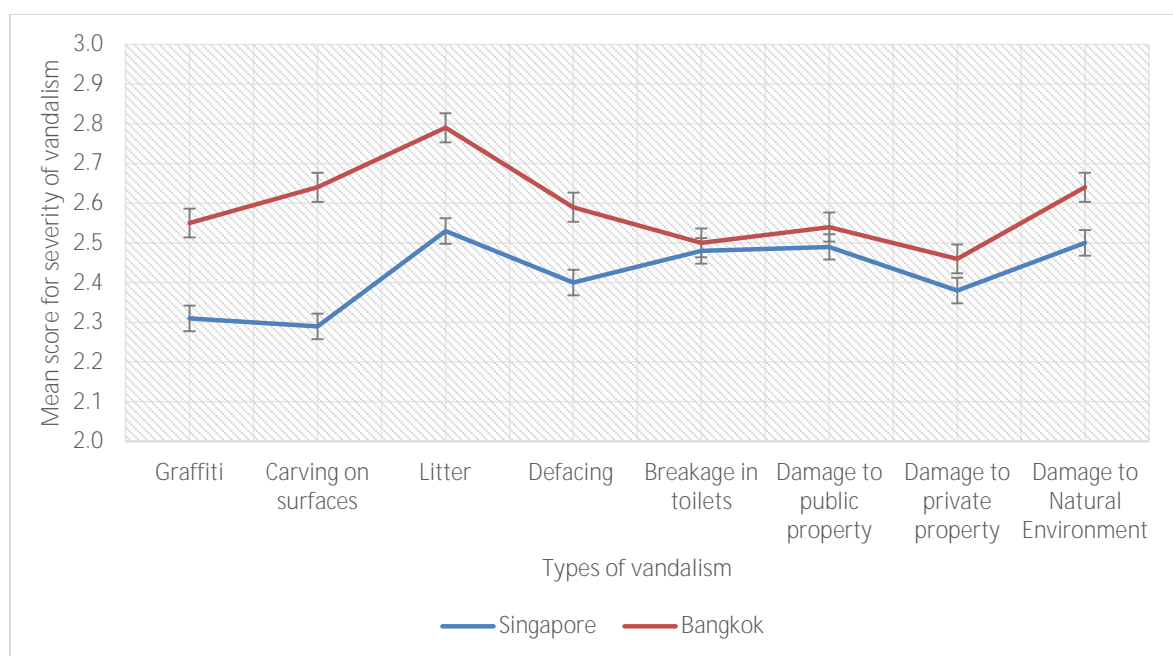
Figure 4.2. Type of vandalism: mean comparison between locations

The results suggested that the types of property damage, location and their interaction term are all significant [$F_{(7, 2653)} = 5.24$, p<.001; $F_{(1, 2653)} = 47.76$, p < .001; $F_{(7, 2653)} = 3.01$, p < .004], supporting the value of using the two way ANOVA model.

Mixed Model Analysis

The effects of each type of property damage and location was further explored by running the mixed model, containing the fixed effects of location and types of damage. The results of which are reported in table 4.8. The main effects of the types of damage suggest that in Bangkok, respondents perceive the same severity level on natural environment damage, carving on surface, graffiti and defacing. By way of contrast for damage to natural environment, respondents assign lower severity to breaking in toilet, damage to public property and damage to private property ($\beta = -0.14$; $p<0.05$; $\beta = 0.11$; $p<0.1$; $\beta = 0.19$; $p<0.01$), with higher severity to litter ($\beta = 0.14$; $p<0.05$).

At the same time, none of the interaction terms were significant except for the interaction term between location and carving on surfaces shows a negative influence

($\beta = -0.21$; $p<0.1$), suggesting that the respondents in Singapore perceived the same severity on all the types of damage except that Singapore perceives less severity for carving on surfaces. Table 4.8 presents the coefficient and the standard errors. The regression coefficient explains how much variance in dependent variable is explained by the independent variable. The table below explains how vandalism is affected by different types of property damage in Singapore and Bangkok and the interaction between them.

Table 4.8 *Two way ANOVA type of vandalism and location on severity of vandalism*

Parameter	Coefficient	Standard Error
Main effect: types of property damage		
Graffiti	-0.09	0.06
Carving on Surfaces	0.00	0.06
Litter	0.14*	0.06
Defacing	-0.05	0.06
Breaking in toilet	-0.14*	0.06
Damage to public property	-0.11+	0.06
Damage to private property	-0.19**	0.06
Main effect: location		
Singapore	-0.15+	0.07
Interaction		
Graffiti x Singapore	-0.10	0.10
Carving on surfaces x Singapore	-0.21+	0.10
Litter x Singapore	-0.11	0.10
Defacing x Singapore	-0.05	0.10
Breaking in toilet x Singapore	0.13	0.10
Damage to public property x Singapore	0.10	0.10
Damage to private property x Singapore	0.08	0.10

Note: Damage to natural environment is the base category for types of damage. Bangkok is the base category for location.
*** $p<0.001$; ** $p<0.01$; * $p<0.05$; + $p<0.1$

A series of post hoc pairwise comparisons using the Sidak test in Table 4.9 revealed that litter (M=2.66, SD=.52) was significantly higher than graffiti (M=2.43, SD=.66), carving (M=2.47, SD=.62), defacing (M=2.50, SD=.62), breakage in toilets (M=2.49, SD=.63), damage to public property (M=2.51, SD=.62) and damage to private property (M=2.42, SD = .67).

Table 4.9 *Sidak post hoc pairwise comparison of type of property damage*

Type of property damage	Mean	Std. Error	Std. Deviation	95% Confidence LB	UB
Graffiti	2.43	.04	.66	2.37	2.50
Carving on surfaces	2.47	.03	.62	2.40	2.53
Litter	2.66	.03	.52	2.60	2.72
Defacing	2.50	.03	.62	2.43	2.56
Breakage in toilets	2.49	.03	.63	2.43	2.56
Damage to public property	2.51	.03	.62	2.45	2.58
Damage to private property	2.42	.04	.67	2.36	2.49
Damage to Natural Environment	2.57	.04	.62	2.50	2.64

In summary, the results of the ANOVA analysis exploring the relationship between types of vandalism and location revealed a significant main effect for types of property damage and location. There was significant interaction between type of property damage and location on severity of vandalism. A particular type of property damage, carving on surfaces, was significantly different and lower than other types of property damages in Singapore. The results revealed no differences in the responses between Singapore and Bangkok respondents who view the various acts of property damage as equally problematic constructs of vandalism.

Types of property damage comparison between locations (Singapore or Bangkok)

To explore the differences with a location, two, one-way repeated measures ANOVA were used to investigate the attitudes of the community towards the various acts of property damage (*graffiti, carving, litter, breakage, defacing, public property damage, private property damage, damage to natural environment*) as a problem for Singapore and Bangkok respectively. The statistics for Singapore are presented in Table 4.10.

Table 4.10 *One way ANOVA: type of vandalism in Singapore*

Type of Vandalism	N	Mean	Std. Deviation	95% Confidence LB	UB
Graffiti	126	2.31	0.72	2.17	2.40
Carving on surfaces	138	2.29	0.67	2.14	2.37
Litter	150	2.53	0.60	2.35	2.57
Defacing	136	2.40	0.69	2.21	2.44
Breakage in toilets	141	2.48	0.70	2.30	2.52
Damage to public property	139	2.49	0.71	2.31	2.53
Damage to private property	133	2.38	0.78	2.20	2.43
Damage to Natural Environment	113	2.50	0.68	2.36	2.60

$F(7, 1068) = 2.28, p < .02$

In the current study, 168 community members in Singapore were asked to rate their opinion on various acts of property damage using a 3-point rating scale. The repeated measures ANOVA indicated significant effects for various types of property damage, F(7,

1068) = 2.28, p < .02. The test suggest that respondents in Singapore perceived that the various acts of vandalism are not same.

A series of pairwise comparison using the post hoc Sidak test revealed that litter (M=2.53, SD=.60) was significantly higher than graffiti (M=2.31, SD=.72) and carving (M=2.29, SD=.67). Damage to natural environment (M=2.50, SD=.68) was significantly higher than graffiti (M=2.31, SD=.72) and carving (M=2.29, SD=.67). The results showed no significant difference between defacing (M=2.40, SD=.69), damage to public property (M=2.49, SD=.71) and private property (M=2.38, SD=.78) in Singapore.

Similar statistical procedure in the form of one-way repeated measures ANOVA was employed in the Bangkok dataset to investigate the attitudes of the community towards the various acts of property damage as a problem. In the current study, 225 community members in Bangkok were asked to rate their opinion on various acts of property damage using a 3-point rating scale. The repeated measures ANOVA indicated significant interactions for various types of property damage, $F(7, 1585) = 7.112$, $p < .001$ suggesting significant association within the various types of vandalism and property damage in Bangkok (Table 4.11).

Table 4.11 *One way ANOVA: type of vandalism in Bangkok*

Type of Vandalism	N	Mean	Std. Deviation	95% Confidence LB	UB
Graffiti	207	2.55	0.60	2.47	2.64
Carving on surfaces	194	2.64	0.53	2.57	2.72
Litter	212	2.79	0.43	2.73	2.85
Defacing	194	2.59	0.55	2.51	2.67
Breakage in toilets	202	2.50	0.58	2.42	2.58
Damage to public property	200	2.54	0.55	2.46	2.61
Damage to private property	182	2.46	0.59	2.37	2.54
Damage to Natural Environment	202	2.64	0.57	2.56	2.72

$F(7, 1585) = 7.112$, $p < .001$

A series of pairwise comparison using the post-hoc Sidak test revealed that litter (M=2.79, SD=.43) was significantly higher than graffiti (M=2.55, SD=.60), defacing (M=2.59, SD=.55), breakage (M=2.50, SD=.58), damage to public property (M=2.54, SD=.55) and damage to private property (M=2.46, SD=.59). Carving (M = 2.64, SD = .53) and damage to natural environment (M=2.64, SD= .57) were significantly higher than damage to private property (M = 2.46, SD = .59) in Bangkok.

4.5.1.1 Discussion – Research question one

The two-way ANOVA test revealed significant main effect for location and property damage. The interaction between property damage and location is significant too. The results suggest that the concept of vandalism has significant differences between locations. The post hoc Sidek test results show that litter and damage to the natural environment compared to other types of property damage were significantly higher in Singapore. By contrast, littering emerged as the most significant type of property damage in Bangkok, followed by carving and damage to private property.

The ANOVA results confirmed significant main effect of location on severity of vandalism. To explain this further, it is reasonable to conclude that in Bangkok, respondents see more frequent litter> natural environment damage, carving, graffiti > breaking toilet, damage to public property and private property, and hence, the severity gets lower from litter to damage of private property. This would give implication that in Bangkok, more effort has to be made on prevention of the first several behaviours. In Singapore, respondents see very few carving cases (because the tourist attractions are well protected by law) and perceive it as the least severe problem.

There are significant differences between Singapore and Bangkok regarding the perception of seriousness of property damage as a problem. Thus, respondents' view about

vandalism as a problem is dependent on locational factors. This is an important finding that

highlights the role of situational and cultural factors in attitude formation.

The diversity in the stakeholder attitudes and perceptions towards property damage

influence the nature of responses to vandalism and future participation intention. A survey of

the literature suggests that for a sustainable tourism development approach to be workable,

partners from the tourism industry, government, and community, in other words, groups and

individuals with divergent interests, goals, values, and perspectives, need to be drawn into the

process of tourism planning and development (Bramwell & Lane, 2009; Weaver, 2006).

The significant ANOVA (one- and two-way) results have been a good set of measures

building a discriminatory index. The one-way ANOVA reveals significant differences

between types of property damage for in-between location. The analysis underscore that

respondents in Bangkok were of the opinion that the various acts of property damage were a

serious problem when compared to their counterparts in Singapore. Although the ratings of

Bangkok sample were consistently higher, the trend in the two line graphs is similar. The

similarity in the trend of responses from the two locations could lead to an adoption of a

consistent intervention strategy.

4.5.2 Results – Research question two

Research Question: What is the relationship between psychographic profile (optimists

and pessimists), time orientation (current and future), and location where the

property damage is experienced (Singapore and Bangkok)?

The preceding section highlighted the value of the severity index in assessing the

perception of the extent of property damage as a problem by the members of the community.

The analysis here reviews the attitudes of the local community by labelling them as optimists

and pessimists. The steps to construct the psychographic variables were outlined earlier in the

chapter in section 4.3. This subsection analyses the relationship between optimists/pessimists

and location. It then considers a cross-tabulation of optimists and pessimists compared on the

basis of time orientation within and between locations.

The Chi-square test results of the overall attitudes as optimists and pessimists (Table

4.12) show no significant differences (Chi-square=0.80, *df*:1, p = .37) between locations. The

cumulative data reveal that a large percentage (n=281, 84%) of the respondents maintain an

optimistic view in addressing property damage at visitor attractions irrespective of their

location.

Table 4.12 *A comparison of optimists and pessimists by location*

		Singapore		Bangkok		Chi-square test			
		N	%	N	%	Value	df	Sig.	N
Overall Attitudes	Optimists	114	82	167	85.6				
	Pessimists	25	18	28	14.4				
	Total	139	100	195	100	0.8	1	0.371	334

Additional tests were performed to analyze the psychographic orientation of

respondents with regards to current and future attitudes towards vandalism. The results of the

chi square tests in table 4.13 show that there is significant relationship between

optimists/pessimists current and future time orientation in both locations (Singapore Chi

Square = 36.19, *df*: 4, p< .001 and Bangkok Chi Square = 63.13, *df*: 4, p< .001). The results

of overall (combined for location) optimists/pessimists current/future time orientation reveal

a similar significant relationship.

Table 4.13 *Optimists/pessimists time orientation compared within location*

| | | | Future Orientation | | Chi Square Test | | |
			Optimist %	Pessimist %	Value	df	N
Singapore: Optimist / Pessimist current orientation with Optimist / Pessimist future orientation*	Current Orientation	Optimist	17.20	60.46	36.19	4	162
		Pessimist	82.80	39.54			
Bangkok: Optimist / Pessimist current orientation with Optimist / Pessimist future orientation*	Current Orientation	Optimist	26.02	48	63.13	4	212
		Pessimist	73.98	52			
Overall: Optimist / Pessimist current orientation with Optimist / Pessimist future orientation*	Current Orientation	Optimist	11.5	77.77	87.91	4	374
		Pessimist	88.5	22.23			

*$p < 0.001$

4.5.2.1 Discussion – Research question two

There is no significant interaction between optimists/pessimists between locations. This suggests similar attitudes among respondents from Singapore and Bangkok.

The relationships between current and future attitudes present an interesting inference. There is significant relationship between current orientation and future orientation towards vandalism in Singapore and Bangkok. Respondents with an optimistic current time orientation may not have positive views about vandalism in future. On the other hand, respondents with current pessimist attitude change to optimists attitudes in future. This trend is evident in Singapore, Bangkok and the overall dataset.

The change in attitude (pessimist current views to optimist future perceptions) of respondents in Bangkok could be attributed to the deteriorating current state of vandalism prevention measures. The high current level of property damage evidenced during the physical audit study covered in Chapter three could justify the current pessimistic sentiments within the community. In contrast, Singapore has already introduced many measures, limiting the number of new measures and thus decreasing optimist sentiments associated with future.

The above discussion draws attention to the importance of stakeholder involvement, stakeholder education and management practices. Clarke and Waligo (2013) argued that involving stakeholder such as the community members will create a sense of belongingness and ownership. Community involvement creates positive perceptions towards actions and their long term benefits in curbing vandalism (Carr, 2012; Lesego Senyana & Tibabo Moren, 2011; Sarkis et al., 2010; Skogan, 2011).Timely information on and awareness of intervention strategies and the intended results will facilitate the community's understanding of the measures. Community involvement will create awareness of the problem and result in higher levels of support for intervention. Finally, effective repair and maintenance and vandalism preventive approaches will generate a positive mindset within the community (Skogan, 2011).

4.5.3 Results – Research question three

Research Question: What is the relationship between the overall level of current involvement (individual, community, site management, and local authorities) and the levels of effectiveness of actions of the same stakeholders?

An additional section of the questionnaire focused on the current involvement and actions of various stakeholders within the local community of a visitor attraction. The section consisted of several *paired questions* exploring the extent of current action/involvement and the effectiveness of these actions in addressing property damage at the attraction. In the survey, the first of the paired questions queried current involvement in various behaviours and actions (*please indicate your current involvement*). The respondents were asked to comment on the effectiveness of these behaviours and actions in addressing property damage. The paired questions were addressed to the individual in the community, the community as a composite unit, site management, and the local government/authority. The final set of paired questions investigated the presence of joint action between the stakeholders and its

effectiveness. A detailed analysis of the 'pairwise question' analyses for Singapore and

Bangkok combined is provided in appendix G. The key findings from the analysis are

discussed in the next paragraph.

In reporting the current personal involvement, significant differences were reported

between respondents from Singapore and Bangkok. Respondents from Bangkok show a

higher preference for personal intervention (diff = 0.33, p < 0.001), inform enforcing agents

(diff = 0.44, p < 0.001), participate in social intervention (diff = 0.49, p < 0.001) and talk to

other resident (diff = 0.41, p < 0.001) roles. For the community involvement, Bangkok

response ratings were considerably higher when compared to responses from Singapore for

participate in PR campaign (diff = 0.41, p < 0.001), form a task force (diff = 0.45, p < 0.001),

attend public lecture (diff = 0.44, p < 0.001) and being a volunteer (diff = 0.28, P < 0.001)

roles.

In relation to involvement of attraction management, respondents at both locations

identified management involvement in 'providing signage and information' to visitors as the

most common action. Looking at the mean values differences in site management attraction,

the managements in Bangkok were perceived to be more active when compared to their

Singaporean counterparts. Respondents in Bangkok reported higher ratings for provide

guardianship (diff = 0.25, p < 0.001), human surveillance (diff = 0.21, p < 0.01), mechanical

surveillance (diff = 0.31, p < 0.001) and routine maintenance (diff = 0.27, p < 0.001) roles

suggest that local authorities in Bangkok preferred these options. By contrast, routine

maintenance (diff = 0.36, p < 0.001), improve land use (diff = 0.40, p < 0.001), deploy

enforcing agents (diff = 0.30, p < 0.001) and provide signage and information cues (diff =

0.32, p < 0.001) emerged as the significantly different government involvement types in

Bangkok. In terms of the perceived presence of joint action between the above-mentioned

stakeholders, namely, the individual, community, site management, and the government, it

was observed that majority of respondents found lower levels of joint action.

The descriptive analysis of the involvement type options revealed that the use of

signage emerged as the most popular site management action with M = 4.38, SD = .66 and M

= 4.09, SD = .75 in Bangkok and Singapore respectively. The mean value for the particular

option was also the highest value across various involvement types in both locations This

result was perhaps predictable as signage and information boards are widely used by

attraction management (Bramwell & Lane, 2011; Morgan, Lugosi, & Ritchie, 2010;

Moscardo et al., 2007). Arguably, higher ratings for Thailand dataset across the various

involvement types (lowest rating = 4.19 < M < highest rating = 4.38) suggest higher

community involvement in attraction management initiatives in Bangkok in comparison to

Singapore (3.94 < M < 4.09). The effectiveness of local authority action index in Singapore

(diff = 0.46, p < 0.001), point at efficient implementation of management practices and

policies in the location (Morgan et al., 2010).

Regression analysis of the perception of current involvement in initiatives to address property damage on effectiveness of action

In order to analyse different involvement types and effectiveness of the involvement

dimensions, a modified data set was created to assist the full exploration of the material. The

modified data set had only two sets of variables: involvement/action index and effectiveness

index. Responses of a particular respondent were aggregated. The mean value represented the

individual index for that respondent. An involvement/action index was created for every

respondent for every paired question. A respondent had four involvement/action indices

(*personal action index*, *community action index*, *site management action index*, and *local

authority action index*) accordingly. Similarly, four effectiveness indices were created,

representing an effectiveness rating for each of the four paired questions (*effectiveness of

personal action index*, *effectiveness of community action index*, *effectiveness of site*

management action index, and *effectiveness of local authority action index*). Thus, eight

indexes were created for every respondent to analyse the relationship between the

involvement/action index and effectiveness index.

Ordinary Least Squares (OLS) regression was performed using PASW 20.0 to assess

the effect of a number of factors on the likelihood that respondents would report that the

actions against property damage were effective (Babbie, 2013). The model contained four

independent variables (*personal action index*, *community action index*, *site management*

action index, and *local authority action index*). Four tests were performed to analyse the

effect of the four types of actions on the effectiveness of each action respectively.

Preliminary analyses were conducted to ensure no violation of the assumptions of multi-

collinearity. Multi-collinearity occurs when there is a linear relationship among one or more

of the independent variables. Collinearity (or multi-collinearity) is the undesirable situation

where the correlations among the independent variables are strong (Alin, 2010; Mansfield &

Helms, 1982).

The variance inflation factor (VIF) function in SPSS was employed to measure multi-

collinearity. Tolerance, defined as 1/VIF, is used by many researchers to check on the degree

of collinearity. These measures provide the degree to which each independent variable is

explained by the other independent variables (Tabachnick & Fidell, 2007). A common cut-off

threshold is a tolerance value of 0.10, which corresponds to a VIF value of 10.0. A variable

whose VIF values are greater than 10 may require further investigation (Stevens, 2002). The

mean VIF value for the dependent and independent variables used in this study was less than

2 and the tolerance was 0.2. Thus, there was no multi-collinearity problem in performing

regression tests (Alin, 2010; Farrar & Glauber, 1967).

Table 4.14 presents the results of OLS regression models. Model 1 tested the

relationship between various involvement/action indices (independent variables) and

effectiveness of personal action (dependent variable). The regression analysis results

produced an adjusted R^2 .09 (F=9.705, p<.001). These figures indicate that current

involvement in, initiatives to curb property damage accounted for 9% of the variance in

effectiveness of personal action. Therefore, it is concluded that effectiveness of a community

member's personal actions are influenced by the levels of his/her involvement in, initiatives

to address property damage. Model 1 also showed that personal action index, community

action index and local authority action index were significant and positively linked to the

dependent variable (β= .13, p < 0.05; β = .21, p < 0.001 and β = .14, p < 0.05). The strongest

predictor of effectiveness of personal action was the community action index. This indicated

that respondents who were personally involved in community wide initiatives to address

property damage felt that their actions were more effective in achieving the desired outcomes

in addressing vandalism.

Model 2 tested the relationship between levels of current involvement and perceived

effectiveness of community action and produced an adjusted R^2 of .13 (F=15.321, p < 0.001).

The statistical results show that the current levels of involvement influence 13% variance in

the perceived effectiveness of community action to address property damage at visitor

attractions. This signifies an influence of levels of involvement on effectiveness of the

community's actions. Model 2 showed that community action index, site management action

index and local authority action index were significant and positively linked to the dependent

variable (β = .17, p < 0.01; β = .14, p < 0.05 and β = .13, p < 0.05) respectively show a strong

association between these indexes and effectiveness of community action and community

action index being the strongest predictor of effectiveness of community action.

Table 4.14 *Regression of the perception of current involvement in initiatives to address property damage on effectiveness of action*

	Model 1 DV = Effectiveness of personal action		Model 2 DV = Effectiveness of community action		Model 3 DV = Effectiveness of site management action		Model 4 DV = Effectiveness of local government action	
	Beta	*(S E)*	*Beta*	*(S E)*	*Beta*	*(S E)*	*Beta*	*(S E)*
Personal action index	.13*	(.84)	.01	(.08)	-.01	(.07)	-.03	(.09)
Community action index	.21***	(.88)	.17**	(.08)	.04	(.08)	.01	(.09)
Site management action index	-.12	(.11)	.14*	(.10)	.09	(.10)	-.11	(.12)
Local authority action index	.14*	(.91)	.13*	(.08)	.23***	(.08)	.30***	(.10)
F value	9.70		15.32		10.36		6.12	
Adjusted R²	0.09***		0.13***		0.09***		0.05***	

* *p*<0.05, **p<0.01, ***p<0.001 (two-tailed test), with standard errors in parenthesis

Model 3 explored the relationship between the four action indexes (independent variables) and the perceived effectiveness of site management action (dependent variable). The results produced an adjusted R^2 = 0.094 (F = 10.364, p < 0.001), confirming a statistically significant association between the dependent variable and the independent variables. These figures indicate that current actions of various stakeholders accounted for 9% variance in the perceived effectiveness of site manager actions. Close scrutiny of the t-test (p<0.05) results reveal a strong association between local authority action index and the effectiveness of site management action. The reported beta value for local authority action index was β = .23, p < 0.001. The relationship with other independent variables was not statistically significant. Thus the findings conclude that the level of local authority action has a significant influence on the perceived effectiveness of site management actions. Another interesting finding is that the site management action index, which has a beta value of 0.09 (p<0.116) did not show significant relationship with effectiveness of site management action. This could be due to lack of awareness of site management action to fight property damage.

Members of the local community may be exposed to local authorities actions and receive these measures as the only instrument to curb property damage. Thus they are unable to identify and evaluate site management's responses to property damage.

Model 4 explored the relationship between levels of involvement/actions of various stakeholders and the perceived effectiveness of the local authority's responses to curb property damage at visitor attractions. The results of the statistical analysis produced and adjusted R^2 of 0.051 (F = 6.124, p < 0.001). This statistics revealed that current involvement of various stakeholders influences the perceived effectiveness of local authority/government actions. Therefore, it is concluded that stakeholder participation is associated with effectiveness of local authority initiatives to address property damage. Model 4 showed that local authority action index was significant and positively linked to the dependent variable (β = .30, p < 0.001). This pattern was anticipated as the perceived effectiveness of government actions by the community is of the community's role. In other words, the effectiveness of government action is solely dependent on level of local authority involvement in measures to curb property damage.

4.5.3.1 Discussion – Research question three

The results of the regression analysis offer some interesting insights about the effectiveness of different types of involvement. The first topic to be considered is the lack of significance of personal involvement in influencing effectiveness of other stakeholder action. The results suggest involving citizens via community action will be more effective than personal action. Secondly, the site management effectiveness is influenced only when the respondents are involve in it through local authorities. This reveals the perceived dependency of site management on local government policies and initiatives to curb vandalism. Finally, the involvement through local authorities leads respondents to be more confident of the effectiveness of all types of involvement. This is reasonable given that authorities have the

power and resources. This implies that government should play a more important role in engaging people. Involvement via the community can also enhance respondents' perception of the effectiveness of personal and community action. It even plays a more important role in influencing effectiveness of personal action than personal action itself. The above findings could be attributed to that community and local authority enjoy more resources and voting power compared to formal (site management) or informal (personal action) individual actions.

Positive and significant correlations on all tests about current action and effectiveness of current action show a strong relationship between action/involvement and their effectiveness. Higher levels of stakeholder (individual, community, site management, and local government) involvement showed higher levels of effectiveness of stakeholder actions. The results suggested residents who receive more personal benefits from tourism perceive higher levels of positive impacts, and this was generally supported. This finding is consistent with existing research, which has found that people who are employed by the industry, or express a higher level of dependence on or benefit from it, have more positive attitudes towards tourism (Andereck, Valentine, Knopf, & Vogt, 2005).

An important contribution of this study is the insight that those who hold some sort of personal 'stake' in local tourism activities have greater perception of their involvement in attraction management. The local community comprising of the business and residents in the vicinity of the attractions are the most involved group. Another observation was the positive correlation between current personal action and desired level of involvement index indicate that individuals with substantial current involvement have a higher desire for being involved in actions/roles to address property damage at visitor attractions.

The comparative difference in scores between Bangkok and Singapore can be attributed to the contrast in level of economic development at the two locations. In the

developed country economic setting of Singapore, the regulatory bodies focus on protecting

the existing infrastructure, while the authorities in developing economy of Thailand target

improvements and repair of facilities and infrastructure.

The findings about the perception of presence of joint action between key

stakeholders, the results of the survey are consistent with the findings of the physical audit

conducted and discussed in chapter 3 earlier in this thesis. The two studies confirm the

consistent lack of joint action, more so in Bangkok, in addressing property damage at

attractions.

4.5.4 Results – Research question four

Research Question: What is the effect of the psychographic variables of (Severity and

Optimists/Pessimists) and location (Singapore and Bangkok) on the desired level of

involvement/roles?

Members of the local community may see themselves participating in various forms

of actions. Their participation may range from individual initiative to group action. They may

participate directly or indirectly by influencing and motivating others to participate.

Knowledge of individual preferences is key in encouraging community members to be

involved (Alonso & Liu, 2012). It was therefore recognised that the survey must explore

participation-related preferences of the community. The discussion in this section is based on

results from descriptive statistics in Table 4.15. In identifying the desired roles and the level

of personal involvement of the community, this section of the questionnaire comprised two

questions constructed on participation-related statements. The respondents were asked to rate

their agreement using a Likert scale with a minimum of 1 (*strongly disagree*) and a maximum

of 5 (*strongly agree*).

Table 4.15 *Independent sample t-test results: Desired involvement and roles descriptive*

Roles	Overall mean	Singapore Mean (SD)	Bangkok Mean (SD)	Mean Difference	p – value
Assist in site management	3.69 (.87)	3.75 (.81)	3.65 (.91)	0.1	p = .01
Involve in decision making	3.81 (.80)	3.7 (.83)	3.9 (.77)	-0.2	p = .04
Give feedback	3.92 (.80)	3.8 (.76)	4.01 (.80)	-0.21	p = .009
Support initiatives	3.91 (.84)	3.69 (.83)	4.06 (.81)	-0.37	p < .001
Participate in reducing damage	3.72 (.88)	3.6 (.89)	3.81 (.87)	-0.21	p = .02
Need local authorities to assist	4.01 (.84)	3.69 (.83)	4.25 (.76)	-0.56	p < .001
Involvement in community action	3.93 (.93)	3.55 (.89)	4.2 (.86)	-0.65	p < .001
Help site management	3.78 (.88)	3.53 (.89)	3.96 (.82)	-0.43	p = .009

Results of the *t*-test in Table 4.15 that participants have significantly different preferences over desired roles and future involvement types between community members in Singapore and Bangkok. Respondents from Singapore show a higher preference for assisting site management than respondents from Bangkok (diff = 0.1, p < 0.01). On the other hand, respondents from Bangkok seem to show more interest in other roles than those in Singapore. Some of the top ranked roles played by respondents in Bangkok are to seek to support to local authorities, have involvement in community action and support initiatives.

The comparative mean value difference for roles and involvement type in Singapore and Bangkok identify locational preferential variations. The supporting the initiatives role differs between Singapore and Bangkok. This particular desired involvement option was relatively popular with Bangkok respondents (diff = 0.37, p < 0.001). Respondents in Bangkok also preferred involvement in community actions (diff = 0.65, p <0.001) and require assistance of local authority (diff = 0.56, p <0.001) when compared with their Singapore counterparts. The variation suggests the influence of cultural differences of respondents at the two locations in their attitude towards individual or group-based involvement types.

On one hand, respondents from Bangkok showed a preference for group/community based involvements (Hofstede, 2001; Meyer & Selvarajah, 2013; Rezaie Doulatabadi & Derakhshide, 2012).On the other hand, due to well-developed institutional infrastructure in terms of law and enforcement system, people in Singapore may believe in the government's capability and effort in protecting tourism resources (Poocharoen & Lee, 2013; Siriwardana & Meng, 2013). In contrast, the institutional infrastructure in Thailand is less developed, so perhaps, institution, the community in Bangkok sees more necessity to engage local authorities and foster grassroot action (Menkhoff, 2011). While the previous section analysed the differences between roles in Singapore and Bangkok, the next section considers the preferences within the sample for each location.

Table 4.15 shows that both locations have most preferred and least preferred involvement roles. It is evident from the table that the mean scores ranged between 3.65 (to assist site management) and 4.25 (require assistance of local authorities) for Bangkok. The ability to assist site management (M = 3.53, SD = 0.89) emerged as the least preferred and participating in discussions and giving feedback (M = 3.80, SD = 0.77) the most preferred involvement type for the Singapore sample. Overall, the mean scores ranged between 3.69 (to assist site management) as the least preferred option and 4.01 (require assistance of local authorities) as the most preferred involvement type. The results indicate minimum variation in the standard deviation values in the *participate in reducing property damage* involvement option (Singapore SD = 0.89, Bangkok SD = 0.87, overall SD = 0.88) suggesting high level of agreement within the respondents regarding the desired involvement in addressing property damage.

To further explore the relationship between optimists/pessimists label and their desired level of personal involvement, an independent sample *t*-test was performed. The independent samples *t*-test was used to compare the desired roles and level of involvement by

participants under the optimists label (n = 276) to the desired roles and involvement levels

under the pessimists label (n = 51). The *t*-test was not statistically significant with the

optimists label (M = 3.80, SD = 0.68) reporting the same desired level, 95% CI (−0.19, 0.19)

as the pessimists label (M = 3.80, SD = 0.54).

The independent samples *t*-test was also used to identify the effect of notion of

severity (not a problem and major/minor problem) on the desired roles and level of

involvement by participants. The *t*-test reported not significant difference (Difference = 1.76,

p = .17) and was not statistically significant with the 'not a problem' indices (M = 36.23, SD

= 7.93) reporting similar desired level, 95% CI (−4.44, 0.93), as the 'major/minor problem'

index (M = 37.78, SD = 6.45).

4.5.4.1 Discussion – Research question four

Existing literature (Alonso & Liu, 2012; Clarke & Waligo, 2013; Hamilton &

Alexander, 2013) confirms that community involvement is essential in delivering desired

outcomes. In many tourism contexts the local community can be engaged in co-creating a

desirable social environment. For example, Hamilton and Alexander (2013) report the

success of a community led 'adopt a station' program in industrial railway heritage tourism in

the UK. The parallel for this study is the knowledge of desired involvement, in preferred

roles, of the community is essential in investigating their attitudes towards property damage

at visitor attraction in their community.

In the subsection reporting the community participation study, it was revealed that

community members differ in their participation preferences based on location. Respondents

in Singapore preferred individual-based forms of participation, while the Bangkok sample

recorded high levels of participation in community or group initiatives.

There is no significant effect between severity, optimists/pessimists, and desired level

of involvement. Thus, respondent views related to the extent of vandalism as a problem and

their views of the future are independent of their desire to be involved in initiatives to address

vandalism. The non-significant effect between severity and optimists/pessimists variables

with desired level of involvement also suggests an independence of attitudes and action.

Property damage is considered as a serious problem, but its seriousness does not translate into

increased desire for community to be involved.

There are statistically significant differences, at the 0.05 level of significance,

between Singapore and Bangkok respondents. The general trend for higher mean scores in

the Bangkok sample as compared to Singapore suggests higher willingness of individuals in

the community to be involved in initiatives to address property damage. This could be

attributed to the current scope of government role. In reference to chapter 3, it has been

discussed that local authorities in Bangkok were unable to provide adequate guardianship,

surveillance, and maintenance to safeguard visitor attractions. In contrast, the relatively active

role of the authorities in Singapore may have influenced the individual's attitude towards

their role in protecting visitor attractions in Singapore. No statistical difference exists

between Singapore and Bangkok respondents in terms of the desired involvement role of

'being a site champion', 'being a committee member', or 'direct involvement in decision

making' scores.

An analysis of the standard deviation values reveal comparatively higher standard

deviation scores for the statements *involvement in community action*, *participating in*

reducing damage, and *assisting site management*, which can possibly be attributed to the

ambiguity of the statements. There could be several forms of behaviours, actions, and

channels through which the respondent may get involved. Thus, the statements are open to

individual interpretation. Inclusion of suggested involvements in the questionnaire itself

would have narrowed down the scope of options on an individual and thus reduce the

ambiguity.

4.6 CONCLUSION

This chapter has presented findings of the community survey, with the local community's attitudes and their responses to property damage at local visitor attractions located within their community. The chapter presents an innovative approach to analyse the data with the help of psychographic variables. For the purpose of the study, two psychographic variables were constructed. The perceived severity index was a construct which measured the perceived seriousness of property damage, while the optimists/pessimists distinction evaluated time-trends in attitudes of the community towards property damage at visitor attractions.

Cronbach's alpha coefficients were calculated to assess the quality of the set of measurement items used in the statistical analysis. The reliability analyses of measurement confirmed that all measurements perform adequately. Exploratory factor analysis was performed to test the structural coherency of the variables. The exploratory factor analysis of optimists and pessimists attitudes, personal action index, community action index, site management action index, local authority action index, and desired involvement index measurements resulted in single factor loadings. The single factor loading for each measurement suggested high structural coherence of the variables (Bernard, 2013; Dwyer et al., 2012).

Findings in this study revealed that property damage is considered as a serious problem by the members of the community in Singapore and Bangkok with 82.8% respondents in Singapore and 95.5% respondents in Bangkok showing concern regarding property damage as a major or minor problem at visitor attractions. Another interesting finding related to the pessimist and optimist distinction. Time-trend statistical analyses revealed that perceptions of community members change over a period of time. For instance, 154 (67%) respondents were pessimistic about current levels of property damage, but only 17

(7%) of the respondents maintained pessimistic views in the future, suggesting that a large proportion of the community expected lower levels of property damage in future. This is a powerful finding, which is unparalleled in most Western literature. In addition, the chapter presented findings of the five research questions. A summary of the findings is provided in the following section.

Research question one confirmed that the various acts of property damage (graffiti, carving on surfaces, litter, defacing, breakage in toilets, breakage to public property, damage to private property, and damage to natural environment) were considered to be severe influence on levels of property damage at the visitor attractions. A survey of the literature reveal similar acts in school setting, public spaces, community areas and private attractions (Enrico, Giuseppe, Mauro, & Concetto, 1998; Ghazal, Vázquez, & Amer, 2012; Hazard, 2009; Samdahl & Christensen, 1985). This research found that litter and damage to the natural environment are considered as relatively important acts of damage. This finding is consistent across Singapore and Bangkok samples. Statistical analysis to explore the location differences suggests that litter and damage to natural environment were the most significant acts of damage in Singapore. In comparison, the findings in Bangkok sample revealed that litter, carving on surfaces, and damage to natural environment were seen as more severe than other acts of damage. The results were consistent with the findings of empirical research studies (Dempsey & Burton, 2012; Malek & Mariapan, 2009).

Additionally, research question one illustrated the locational difference between perceived severity of property damage as a problem. The statistical analysis confirmed that the respondents in Bangkok considered property damage as a relatively severe problem when compared to respondents from Singapore. This important finding suggests that locational factors are influential in determining the perceived seriousness of property damage as a problem. Fyall et al. (2001) in a study of Scottish attractions arrived at similar conclusions

regarding the influence of locational factors in extend of property damage. Similarly (Shaw & Williams, 2004) recognized role of tourism spaces in production and consumption of tourism activities, consumption tourist experiences, and the reconstruction of physical spaces. This principal finding of this section suggests a difference in Western and non-Western attitude formation and decision making process based on locational differences.

Employing a psychology based approach (cf. Jewell & Crotts, 2002; Scheier & Carver, 1987), research question two investigated whether there was a relationship between psychographic profile (optimists and pessimists), current and future time dimension, and location. Independent mean tests suggest that respondent attitudes do not change between locations. The findings reveal that 281 (84.1%) respondents were optimistic regarding future levels of property damage, irrespective of the location. The results of the chi-square test revealed a significant relationship between current and future attitudes of respondents within a location. These findings were consistent across both the Singapore and Bangkok samples.

Research question three attempted to clarify two major findings. First, it clarified relative popularity of different types of current involvements in initiatives to address property damage at various levels (individual, community level, site management level, local authority level, and joint action between stakeholders). Several studies have emphasized the role of stakeholder involvement in achieving desired attraction management outcomes (Bishnu & Pam, 2009; Clarke & Waligo, 2013; Fyall, Leask, & Garrod, 2002; Leiper, 1990). The second set of analysis involved standard multiple regression to reveal current involvement/action influences on perceived effectiveness of the actions of various stakeholder groups.

The descriptive analysis reported that the respondents in Singapore preferred to play a passive role in forming enforcing agencies or involving themselves in collective action. It was not surprising to note that respondents did not feel it was their responsibility to address property damage. In contrast, the Bangkok sample felt more involved personally. However,

they also felt that it was not their responsibility to address property damage. This interesting

finding suggests low levels of community ownership of visitor attractions in Bangkok. The

cultural differences is evident in the decision making process and the responses of

community members. The findings confirm the widely maintained view in the tourism

literature regarding local variability and cultural influences on tourist and community

behaviours (Allik & McCrae, 2002; Crotts, 2004; Crotts & Jewell, 2009; Jafari, 1987; Jewell

& Crotts, 2002; Reisinger & Crotts, 2010).

In relation to community involvement in actions against property damage, the

respondents in Singapore and Bangkok viewed the community as actively involved in both

locations. Site managers were seen as most involved in providing signage and information to

guide visitor behaviour. The findings confirmed that the site managers in Singapore were

more effective in implementing practices and policies to curb property damage. The local

authorities in Singapore focused on providing surveillance and guardianship, while the

counterpart in Bangkok considered routine maintenance and improving land use as family

initiatives. It was not surprising to find that Singapore government's actions were considered

to be more effective than the actions of the authorities in Thailand (Siriwardana & Meng,

2013).

An interesting finding was lack of joint action between primary stakeholders such as

the local community, site management and local authorities (Jamal & Stronza, 2009).

Although there was limited evidence of joint action between stakeholders, the effectiveness

of joint action was consistently rated quite highly in both locations. The absence of

collaborative arrangements between the site management, legislative authorities and the local

community results in indifferent attitudes towards attractions and tourism infrastructure

(McCool & Moisey, 2008; Paskaleva-Shapira, 2007). This indifference may indirectly

support deviant behaviour and property damage at the attractions, thus threatening sustainable

tourism development (Hetherington et al., 1993).

       The second set of the statistical procedures performed regression analyses to test the

relationship between the level of current involvement/action and effectiveness of these

actions. Several sub-hypotheses were developed to test the relationship between different

involvement/action indices and the effectiveness of the action indices. Table 4.16 summarises

the findings of the regression analysis and the relationships between current involvement and

effectiveness of involvement.

Table 4.16 *Summary of relationship between current involvement in initiatives to address property damage and perceived effectiveness of the actions.*

No	Relationship	Results
1	The perception of current involvement in initiatives to address property damage on **effectiveness of personal action**	
	Personal action index and effectiveness of personal action	**Significant**
	Community action index and effectiveness of personal action	**Significant**
	Site management action index and effectiveness of personal action	Not significant
	Local authority action index and effectiveness of personal action	**Significant**
2	The perception of current involvement in initiatives to address property damage on **effectiveness of community action**	
	Personal action index and effectiveness of community action	Not significant
	Community action index and effectiveness of community action	**Significant**
	Site management action index and effectiveness of community action	**Significant**
	Local authority action index and effectiveness of community action	**Significant**
3	The perception of current involvement in initiatives to address property damage on **effectiveness of site management action**	
	Personal action index and effectiveness of site management action	Not significant
	Community action index and effectiveness of site management action	Not Significant
	Site management action index and effectiveness of site management action	Not significant
	Local authority action index and effectiveness of site management action	**Significant**
4	The perception of current involvement in initiatives to address property damage on **effectiveness of local authority action**	
	Personal action index and effectiveness of local authority action	Not significant
	Community action index and effectiveness of local authority action	Not Significant
	Site management action index and effectiveness of local authority action	Not significant
	Local authority action index and effectiveness of local authority action	**Significant**

Research question five investigated whether there was a difference in desired level of involvement based on location or the psychographic profile of the respondents. This research question extends the work in Asian and Australian setting wherein different community roles were studied (Bishnu & Pam, 2009; Lu & Liang, 2011). Since members of the local community could participate in a group action and/or an individual initiative, the knowledge of the nature of their desired participation is helpful in designing intervention strategies and in asking the community to get involved in their preferred initiatives to address property damage.

Descriptive analysis revealed that cultural differences influenced desired roles / level of involvement. For instance, respondents from Singapore preferred personal involvement, while the Bangkok sample suggested participation in group action. Findings revealed that levels of government participation/action influence the community's willingness to be involved in actions in addressing property damage. The results validate the study of sustainable tourism development in Kret Island, Thailand which utilizes diffusion theory to analyse communication flows between government and other stakeholders in understanding and participation in sustainable development (Siripen et al., 2012). Another noteworthy finding was that the community members in Bangkok were relatively more willing to participate in initiatives when compared to their counterparts in Singapore. The relatively active role of the government in Singapore could have resulted in complacency and reliance on the local authorities within the community.

The findings also concluded that there is no significant relationship between the perceived severity of property damage problem and levels of desired involvement in initiatives to curb property damage or between optimists and pessimists attitudes and levels of desired involvement. In summary, actions of an individual member of the community are

independent of their perception of the problem or their attitude towards property damage at visitor attractions within their community.

The next chapter will extend this research project by analysing site managers and government officer stakeholder groups. The study will evaluate responses of site manager and government officer stakeholder groups responsible for management of visitor attractions in Singapore and Bangkok. In line with the emic methodological approach, the chapter will employ a qualitative line of enquiry.

CHAPTER 5

VIEWS OF SITE MANAGERS AND GOVERNMENT OFFICIALS CONCERNING PROPERTY DAMAGE AT VISITOR ATTRACTIONS

5.1 INTRODUCTION

This chapter presents and discusses the perception and responses of key stakeholders who manage or operate visitor attractions. First, there are the attraction site managers. These site managers comprise individuals involved in visitor management and visitor behaviour management at the attraction itself. The second group considered in this chapter is the local government officials responsible for formulation and deployment of policies and procedures relevant to visitor behaviours at visitor attractions. Their responsibility includes repair, maintenance, and development of the infrastructure and civic amenities within and around the visitor attractions. This chapter presents the results of the analyses of stakeholder's attitude towards property damage as well as their actions and future strategies to address property

damage at visitor attractions. The study comprises stakeholder responses at twenty-two different sites located in Singapore and Bangkok.

Presentation of information in this chapter begins with a description of the respondents participating in this study. This is then followed by a discussion of research aims and methodological considerations. The findings and discussion of each research question are addressed separately. The final section concludes by presenting an analysis of stakeholder responses to property damage at visitor attractions. Similar to Figure 4.1 in chapter 4, Figure 5.1 summarises the steps involved in conducting interviews in study 3.

Pre-Interview Preparation
- Review of relevant literature
- JCU Human Ethics approval for the study
- Approval from National Research Council of Thailand to conduct the study
- Develop a list of research questions
- Selection of interview questions and prompts for the interview
- Preparation of draft interview questions for interviewer, informed consent, and information sheet for interviewee

Consultation with Academics and Discipline Experts
- Discuss interview questions with Tourism researchers with Tourism industry representatives
- Tourism researchers reviewed wording and sequencing of interview questions
- Invite site managers and government officers for interview via e-mail invitation, telephone calls, and personal visits

Pilot Study
- Ensure procedures are being followed
- Conduct interview and record conversation
- Discuss issues/problems in the interview process
- Transcribe interview conversation to check validity

Revision and Review of the Final Interview Questions and Process
- Tourism researchers reviewed interview pilot study process and findings
- Incorporate suggestions
- Interview process, questions/prompts, and sequence of the questions revised as per suggestions

Interview Questions Translation in the Thai Language
- Ensure interview procedures are being followed correctly
- Discuss issues/problems
- Principal researcher and research assistant conduct interview in the Thai language as required
- Research assistant translates conversation into the English language for transcription

Conduct Interviews in Singapore and Bangkok, Thailand
- Native Thai research assistant translates the questions/prompts in the Thai language
- Tourism researcher in Thai University back translates questions in the English language
- Interview questions/prompts revised as per suggestions
- Train Thai research assistants in interview procedure

Complete Interviews at Each Site in Singapore and Bangkok

Figure 5.1. Steps involved in conducting study 3

5.2 RESEARCH AIMS

The chapter attempts to study the attitudes, actions, and future strategies of attraction stakeholders such as site managers and government officials to address property damage by visitors at the attractions. The study reviews the comments and remarks of stakeholders from twenty-two visitor attractions located in Singapore and Bangkok. The research questions of this interview-based study are derived from the thesis aims 1, 2, 3, 4 and 5, which are as follows:

Aim 1: To extend and explore the application of vandalism by visitors at visitor attractions in a tropical Asian (non-Western) context.

Aim 2: To examine stakeholder responses and their effectiveness in addressing vandalism.

Aim 3: To evaluate whether there are distinctive stakeholder sub-groups holding different attitudes towards vandalism and its prevention.

Aim 4: To compare stakeholder attitudes and perceptions towards vandalism and its prevention in future across two culturally, economically, and socially divergent but popular tourism destination in Asia.

Aim 5: To identify best practices in vandalism prevention and future research direction in the context of sustainable tourism practices.

Deriving from the thesis aims, the questions for the research study in this chapter can be summarised as follows:

What is the perception of site managers and local government officers regarding seriousness of property damage (vandalism) at visitor attractions? This particular question is recalling thesis aim 1. It will be achieved by interviews with the research participants.

What is site managers' and local government officers' response to property damage at visitor attractions? This question is linked with thesis aims 2 and 3 and will be achieved by the qualitative analysis of the interview discussion.

What are the community engagement strategies in addressing property damage? This core aim of this question is to provide relevant information for further analysis of community engagement initiatives. This question is linked with thesis aim 5.

What role do financial budget considerations to address property damage by different stakeholder groups? This specific question responds to aim 3 and it will be approached by the interview discussion.

What are the stakeholder influences on future initiatives to address property damage at visitor attractions? This issue will be discussed in the interview and is connected with thesis aims 4 and 5.

What are the psychographic factors and presentations of property damage at visitor attractions? This particular question is recalling aim 3 and is achieved by qualitative analysis following interviews with the respondents.

5.3 METHODOLOGY

The study employed semi-structured interviews as the main instrument of data collection. An interview provides an interaction between an interviewer and the interviewee. This methodology provides the interviewer with a general plan of enquiry based on a set of topics that can be discussed in depth (Babbie, 2010). According to Lincoln et al. (2011), interviews are useful in gathering empirical materials on complex issues. Semi-structured interviews are useful in maintaining a consistent plan of enquiry, including the topics to be covered. This methodology is useful in gathering detailed information regarding attitudes, opinions, and values of the respondents. The detail and depth of the discussion is helpful in explaining the multiple realities in the social world. Other instruments such as scales and

surveys are arguably not as successful in gathering descriptive materials (Jennings, 2010).

Interviews are also pragmatic research procedure for smaller number of respondents and

therefore fit the needs of this section of the thesis examining site managers' and government

officers' views.

5.3.1 Interview process

Site managers and government officials responsible for day-to-day management and

operations of the visitor attractions constituted the respondent body for this study. This

chapter focuses on the stakeholders of twenty-two visitor attractions sites studied in

preceding chapters. The details of the actual study sites are provided in Table 3.4 in chapter

3. Efforts were made to contact the site managers responsible for managing visitors and the

upkeep of the facilities and infrastructure within the visitor attraction. Similarly, steps were

taken to include the government officials, such as those in the tourism sector, town councils,

and agencies that were directly responsible for setting up policies and management of

geographic areas around the attractions.

Prospective interviewees were invited for the interview via an e-mail or a fax

message. The message included a covering note explaining the study. It was also noted that

participation is voluntary and that the responses were kept strictly confidential. Table 5.1

present the list of interviewees who agreed to be interviewed. The written invitation was

followed up by a telephone call to provide clarification. In Singapore, the written message

and the telephone calls were made in the English language. The written communication

instruments used to contact respondents in Thailand was the English language, and if

necessary, the Thai language. Student research assistants were employed to make the

telephone call to prospective respondents in Bangkok. These research assistants were

comprised of students from Thailand studying in James Cook University's Singapore

campus.

Table 5.1 *Lists of interviewees in Singapore and Bangkok*

S. No	Location	Organisation	Visitor Attraction	Site Manager/ Government
1	Bangkok	Jim Thompson Museum Council	Jim Thompson museum	Site manager
2	Bangkok	Prathumwan Khet District Office	Prathumwan City centre	Government
3	Bangkok	Dusit Zoo Management Office	Dusit Zoo	Site manager
4	Bangkok	Wat Po Administration Council	Wat Po temple	Site manager
5	Bangkok	Khao San Police Station	Khao San Road	Government
6	Bangkok	Tourist Police Bangkok	All attractions in Bangkok	Government
7	Bangkok	Lumpini Park Management Office	Lumpini Park	Site manager
8	Bangkok	Sampontham Khet District Office	Chinatown	Government
9	Bangkok	Siam Paragon Office	Siam Paragon	Site manager
10	Bangkok	Bangkok Tourism Department	All attractions in Bangkok	Government
11	Bangkok	Bangkok Metropolitan Administration	Chao Praya River	Government
12	Bangkok	Tourism Authority of Thailand (tourist guide)	All attractions in Bangkok	Government
13	Bangkok	Siam Park City Management Office	Siam Park City	Site manager
14	Bangkok	Bangkok Parks Administration Council	All attractions in Bangkok	Government
15	Singapore	Wild Wild Wet Management Office	Wild Wild Wet	Site manager
16	Singapore	NTUC club	All attractions in Singapore	Site manager
17	Singapore	National Parks Board	All attractions in Singapore	Government
18	Singapore	Singapore Tourism Board (tourist guide)	All attractions in Singapore	Government
19	Singapore	Gardens by the Bay Management Office	Gardens by the Bay	Site manager
20	Singapore	Singapore Botanical Gardens Management Office	Singapore Botanical Gardens	Site manager
21	Singapore	Sentosa Development Corporation	Sentosa	Government
22	Singapore	National Heritage Board	ACM Museum	Site manager
23	Singapore	Sentosa Rangers Office	Siloso Beach	Site manager
24	Singapore	Singapore Tourism Board (Lifestyle Precinct Division)	Orchard Road	Government
25	Singapore	Singapore Police Force	Chinatown	Government
26	Singapore	Wildlife Reserve Singapore	Singapore Zoo	Site manager

5.3.2 Pre-interview preparation

A list of research questions was developed to provide direction to the nature of questions asked during the interview. A discussion on the research questions is presented in section 5.2. According to (Dwyer et al., 2012) prior knowledge of research questions enables the researcher to prepare an effective list of issues that focus the interaction during the interview. This is helpful in providing structure to the interview. Table 5.2 presents a summary of the pre-planned interview questions/prompts linked to specific research questions. The interview questions and prompts are provided in appendix F. Academic researchers with experience in qualitative research, especially with prior knowledge of interviews, were consulted regarding the list of topics relevant to the research questions, wordings of the tentative questions, and sequencing of the interview sections. Minor revisions were completed on the basis of this feedback.

Table 5.2 *Typology of interview question prompts and research questions*

In your opinion, is property damage at visitor attractions a serious problem?	Yes/ No Open discussion after prompt	Research Question 1
Would you consider the following acts as examples of property damage?	Respond to sheet with 8 pictures representing types of prop. damage	Research Question 1
How did your organisation manage property damage in past?	Examples re current/past actions	Research Question 2
Did your organisation use environment design principles such as surveillance, access control, target hardening, etc., to manage property damage?	Examples of past/current initiatives	Research Question 2
Was your organisation successful in reducing property damage?	Evaluation and reflection on actions	Research Question 2
How did your organisation involve the local community in initiatives to address property damage?	Examples of past/current initiatives	Research Question 3
Was your organisation successful in securing community participation?	Yes/ No Open discussion after prompt	Research Question 3
Are you aware of / involved in joint action to address property damage? Please elaborate?	Yes/ No Open discussion after prompt	Research Question 3
Does your organisation have a financial budget to address property damage? What is the % of the overall budget?	Yes/ No Open discussion after prompt	Research Question 4
What is the annual budget for repair and maintenance (% of the overall budget)? Any change over the last 5 years?	Yes/No Open discussion	Research Question 4
Are you aware of future initiatives to address property damage at visitor attractions?	Yes/ No Open discussion after prompt	Research Question 5
Would you like to make additional comments?	Open discussion	Research Question 5
In your opinion, is vandalism a lesser/greater problem compared to last two years?	Yes/ No Open discussion after prompt	Research Question 6
In your opinion, will vandalism be lesser/greater problem in next two years?	Yes/ No Open discussion after prompt	Research Question 6

5.3.3 Instrument reliability and validity process

In line with Lincoln et al. (2011) recommendation, efforts were made to avoid leading questions. The questions were shared with three academics to solicit comments to limit a bias in the interview questions. The aim of this approach was to confirm that each interviewee is offered similar questions and in same order. This guarantees that answers can be reliably collected and that comparisons can be made with confidence between sample sub-groups or

between different survey periods. Previous studies suggest that well-constructed semi-structured interviews can be reliable and informative (Bryman, 2012; Newton, 2010).

5. 3.4 Translation process in the Thai language

The list of potential questions in the English language, the invitation letter to participate in the interview, and the consent form were mailed to an academic researcher in Thailand for translation into the Thai language. The interview questions in Thai were translated back into the English language by another academic at an institute of higher learning in Thailand. The back-translated questions and the original questions were compared for matching content. Minor revisions were made by a joint committee comprising of the two academics from Thailand and the researcher. The revised questions were used for the pilot study.

5.3.5 Pilot study

The Singapore pilot study consisted of three interviews. Two of the interviews were with the site managers, while the third interviewee was from a local government office. The duration of the interviews ranged between 25 minutes and 40 minutes each. The interview sessions were tape-recorded. The researcher took detailed notes of the discussion during the interview and immediately after the interview. The notes were compared to the audio transcript to ensure completeness of the conversation.

The pilot study in Bangkok consisted of two interviews. The two respondents were a site manager and a government official, respectively. The two interviews took 28 minutes and 33 minutes, respectively. The researcher and a native Thai research assistant conducted the interviews in Bangkok. The Thai research assistant was a postgraduate student in the tourism discipline. The research assistant provided a summary of the discussion immediately after the interview. The researcher took down notes of the summary. The notes were compared to the audio transcript to ensure completeness of the conversation.

The results of the two pilot studies confirmed that the data collected were relevant to the research questions. The quality of the data collected in Singapore interviews was comparable to the data collected from interviews in Bangkok. The interview format was thus established through the pilot studies and was deemed to be suitable for use in the comprehensive study.

5.3.6 Data analysis

Most data analyses conducted for the study were descriptive, but some statistical analyses were performed on categorical data. The data collected in this study were the responses of stakeholders, such as site managers and government officials, with regards to property damage (vandalism) at the attractions. The interviews were conducted between June 2013 and September 2013. In all, 26 interviews were conducted, 14 in Bangkok and 12 interviews in Singapore. The full transcripts of the interviews amounted to 28,000 words, which were then analysed in this study.

According to Jennings (2010), content analysis is a formal methodology that can be used in a study. It represents an approach to discover, uncover, or answer pertinent questions. Systematic analysis of texts is a common and widely regarded methodology. Early evidence of text content analysis can be traced prior to the 1900s (Krippendorff, 2013). Recent times have seen conversation analysis, personal document analysis, and analysis of social media platforms as the generalised measures of meaning. The most recent approach is to employ computer-generated text analysis. The growing popularity of software products such as NVivo and Leximancer is a testimony to computer-generated text analysis as a robust research tool (Leximancer, 2013).

Categorisation of 'unit of texts' such as words, phrases, and sentences reason is an important step in content analysis. Babbie (2010) highlights three methods of coding: (1) manual, done by the researcher; (2) computer-assisted, such as NVivo and Computer Assisted

Qualitative Data Analysis (CAQDAS), wherein the researcher initiates coding and then

allows the software to generate automated codes; (3) computer-generated, such as,

Leximancer and CATPAC. Each of the three methods of coding data has its advantages and

disadvantages. The most significant impact is on the reliability and validity of the research

process. In order to ensure stability and a reproducibility of the information that is reliability,

coding should be repeated or checked if done manually or re-assessed via computer-assisted

mechanisms. Accuracy of the coding process is the strongest form of reliability.

Validity refers to general applicability of results and conclusions obtained from

inferences in the study. Manual coding and computer-assisted coding have been criticised for

lack of validity due to researcher bias, errors in coding, and judgmental conclusions (Kuipers,

Appleton, & Pridmore, 2013; Smith & Humphreys, 2006; Sorrel, 2010). Computer-generated

coding, as in Leximancer, ensures accuracy of the coding process and generates codes that

are free of errors and researcher bias, thus, the approach ensures confidence in the results for

the research process (Cretchley, Rooney, & Gallois, 2010)

The data collected from the interviews were analysed with the help of Leximancer

text analytics software (4.0 edition). Leximancer is a relatively new method for transforming

lexical co-occurrence information from natural language into semantic patterns in an

unsupervised manner (Wu, Wall, & Pearce, 2014). The software aims to assist in analysing

the text "from words to meanings and insights" (Leximancer, 2013, p. 1). It codes the data to

reduce text collections to categories called concepts. In Leximancer, the expression 'concept'

is a synthesis of a text representation. It is built on keywords, synonyms, and stems. Concept

represents something meaningful rather than simply being the repetition of conjunctions and

definite and indefinite articles. Concepts and their relationship form the foundations for

extracting meaning from text. A collection of concepts is displayed on a graphical map in the

form of coloured representative circles called themes. The combination of themes and related concepts assist in analysing the texts from words to meanings and insights.

5.4 RESULTS

The presentation of the research results follows the aims of the study. Each research question is analysed with the help of a concept map. Concept maps were produced to reveal the most common themes and concepts found in the interview transcriptions. The concept map is supported by data on the frequency of occurrence and co-occurrences of concepts.

5.4.1 Overall (combined results for Singapore and Bangkok) representation of site managers' and government officials' attitudes and opinions of property damage at visitor attraction

A first concept map was produced to reveal the most common themes and concepts found in the interviews. The map illustrates the frequency of occurrences and co-occurrences of the concepts. The information is provided in Figure 5.3.
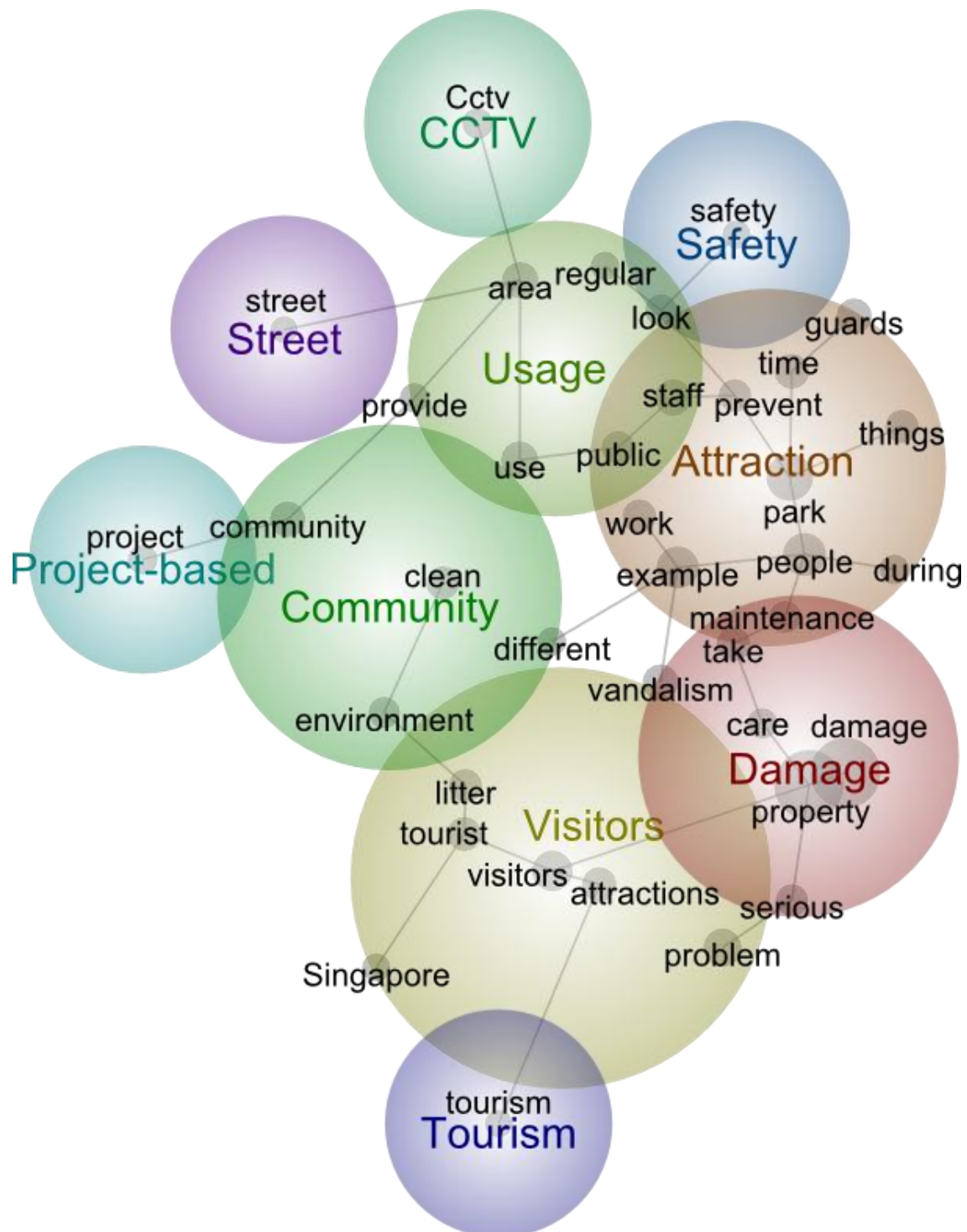
Figure 5.2. Overall (combined results for Singapore and Bangkok) representation of site managers' and government officials' attitudes and opinions of property damage at visitor attraction

In Figure 5.2, concepts are shown as small grey nodes. The nodes are grouped into

themes indicated by the larger coloured circular spaces. Damage, attraction, visitors, usage,

and community were identified as five dominant themes representing the site managers' and

government officers' opinions and attitudes relating to tourist attraction damage in Singapore and Bangkok. The connectivity rate for these five themes were 100%, 93%, 47%, 38%, and 23%, respectively. In Leximancer, the connectivity score indicates the relative importance of the themes with the most important theme at the top with 100%. 'This score is calculated using the connectedness of concepts within that theme as a way to measure the importance of being within the dataset' (Wu et al., 2014, p. 101). The following section describes the characteristics of the dominant themes.

'Damage' emerged as the strongest theme in the interview transcriptions of the site managers and government officials of visitor attractions in Singapore and Bangkok. This 'summary term' was mentioned 146 times in the 26 interviews. The overall theme 'damage' included concepts such as damage, property, vandalism, take, serious, maintenance, and care. Illustrative comments referring to damage at the visitor attractions follow:

> *Damage in any form is not good.*

> *The cultural property is damaged, which is very difficult to repair and replace.*

Highly connected with the 'damage' theme is the 'attraction' theme. The word 'attraction' was mentioned 136 times during the interviews. The theme included concepts such as people, staff, gardens, prevent, time, and so forth. The high connectivity between 'damage' theme and 'attraction' theme illustrates the importance placed by stakeholders to property damage at visitor attractions. Some typical comments relevant to damage at attractions are as under:

> *So what they do to prevent people from breaking their items would be to fence out that particular garden.*

> *They have not been open much more than a year, yet a number of their ornaments have been damaged, and not by accident.*

'Visitors' is the other important theme that illustrates high connectivity to the 'damage' theme. As evident in Figure 5.2, the proximity and overlapping representative circles of the two themes signify important relationships between visitors and damage. The theme includes concepts such as problem, visitor, and litter. Typical comments include as follows:

> *I hope CCTV coverage will help in controlling visitor behaviour.*
>
> *Thai people and visitors should be made aware of the problem and they should feel the responsibility.*

'Usage' is the fourth largest theme. This theme is highly connected with the 'attractions' theme. The close connection between the 'usage' theme and 'attraction' theme may suggest that the usage patterns of visitor attractions could influence the nature of property damage and strategies adopted by the stakeholders to address property damage at visitor attractions. Comment below suggests that the strategies adopted to reduce property damage may depend on the usage patterns:

> *Lighting and signage may or may not help curb vandalism at Botanical Gardens, but I think the major factor is public respect and the degree to which the Gardens are used, making anyone contemplating such acts be very cautious*

The fifth and last dominant theme is 'community'. This theme includes concepts such as different, clean, environment, and community. Figure 5.3 reveals that community is closely linked with dominant themes such as the 'usage' theme and 'visitors' theme. It is also linked with 'project-based' theme. The comments below illustrate the relationship between 'community' theme and other themes mentioned in the preceding statement.

Community and visitors themes:

> *The 'We love Lumphini Park' group formed by regular visitors to the park.*

Community and project-based themes:

There are several projects between the various government departments and the

community.

Community and usage themes:

The organisation launches some activities with the citizens, for example, the event

about the drug addiction with the school as we realized that the community service

like this is the important example to the safety of others in the society.

In addition to the five dominant themes, the concept map for site managers' and

government officers' opinions and attitudes revealed several second-tier themes such as

tourism, safety, CCTV, street, and project-based. These second-tier themes are connected to

dominant themes. The findings reveal clearly that property damage is relevant to visitor

attractions and is linked to patrons who would visit these attractions. Usage pattern of

facilities at visitor attractions is influential in formulating a strategy to address property

damage. It is also evident that community participation is linked to usage patterns and

involves visitors. The role of the community could be categorised as project-based depending

on the situation.

5.4.2.1 Results – Research question one

Research Question: What is the perception of site managers and local government

officers regarding seriousness of property damage (vandalism) at visitor attractions?

This section evaluated whether various stakeholder groups had different attitudes

about property damage. Figure 5.3 maps four stakeholder groups, namely:

Singapore government officer (SGO) group, representing attitudes of officials

employed in Singapore government agencies responsible for visitor attractions in Singapore.

Singapore site manager (SSM) group, representing attitudes of site managers involved

in management of visitor attractions in Singapore.

Bangkok government officer (BGO) group, representing attitudes of officials employed in Thailand government agencies responsible for visitor attractions is in Bangkok.

Bangkok site manager (BSM) group, representing attitudes of site managers involved in management of visitor attractions in Bangkok.

The attitudes of these four stakeholder groups were recorded under two options:

Serious problem: wherein the interviewee believed that property damage at visitor attractions is a serious problem.

Not a problem: wherein the interviewee believed that property damage at visitor attractions is not a serious problem.
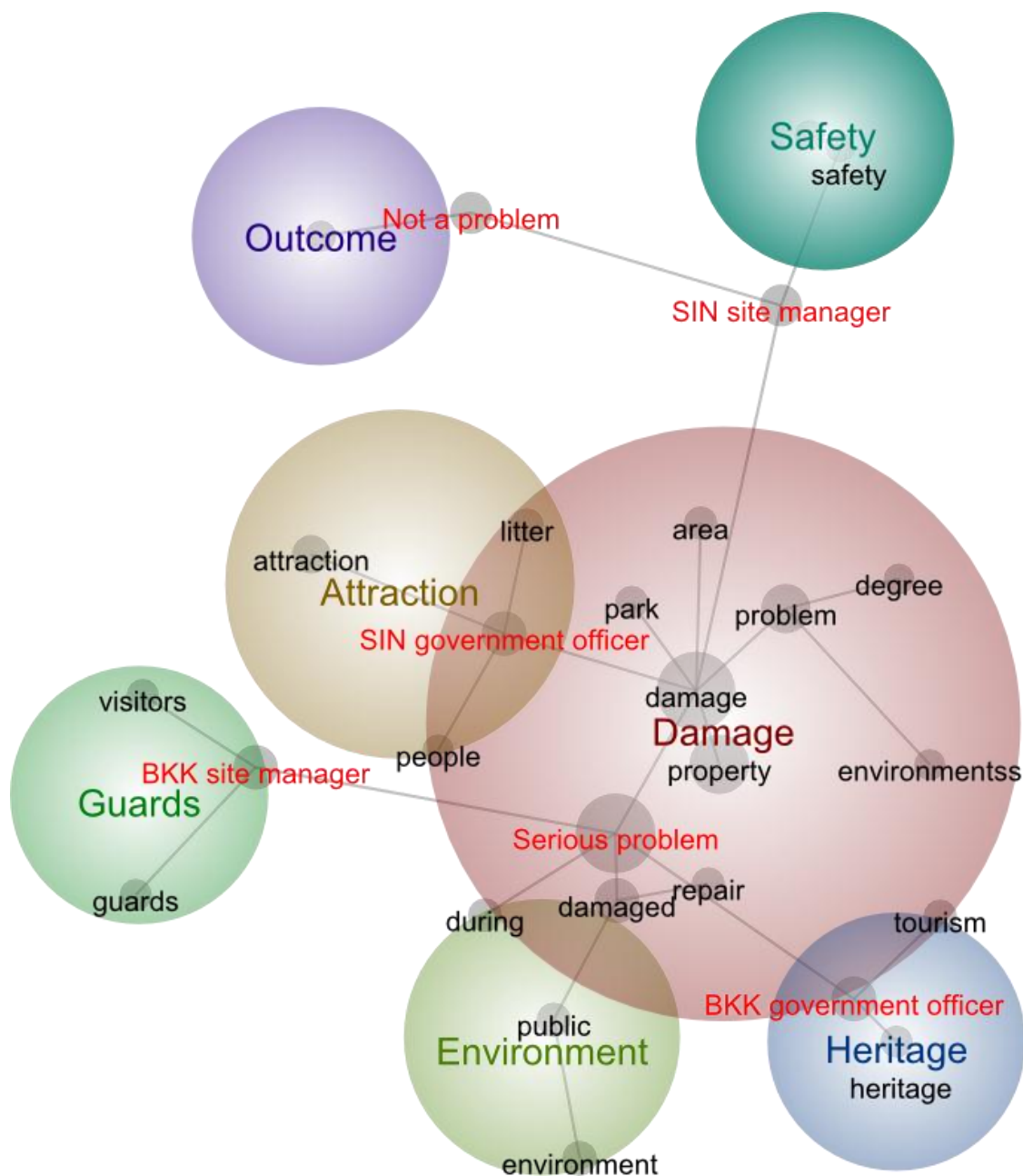
Figure 5.3. Stakeholder groups' attitude about property damage at visitor attractions

In this set of analysis, the concept map (in Figure 5.3) identified seven key themes: damage, attraction, environment, guards, safety, heritage, and outcome (intention). Data analysis confirms that the four stakeholder groups maintained different attitudes about property damage. The close scrutiny of Figure 5.3 reveals that particular concepts and themes are more closely related to certain stakeholder group. The stakeholder groups varied in their attitude about seriousness of property damage as a problem at visitor attractions. The SSM

group did not consider property damage as a problem at visitor attractions in Singapore. This

view could be substantiated by a Singapore attraction's site manager's remarks:

> *Damage to property does not happen very often in Sentosa, and I do not see it is as a*
>
> *serious problem. Most of these damages such as litter and graffiti can be removed, so*
>
> *I will not consider it a serious problem.*

The Singapore site manager group is linked directly to the 'safety' theme and the

'outcome (intention)' theme. The direct linkage with the safety node signifies site

management's importance given to safety of the visitors. A site manager at a Singapore

attraction commented:

> *It is a medium-sized problem unless it affects safety. If they damage the slides and all*
>
> *those kind of thing—inside the park—and there are broken pieces of plastic, then it*
>
> *will cause very serious injury to the guest.*

The direct link with the 'outcome (intention)' theme presents an interesting

perspective. As evident from the comments below, site managers do not consider

unintentional damage as a problem. The attraction management feels it is important to

establish the intention before classifying the outcome as a problem or not.

> *Deliberate damage is not common in attractions in Singapore. Wear and tear due to*
>
> *high traffic flow of guests is more common.*

On the other hand, attitudes of the SGO group appeared to consider property damage

as a serious problem. Though there is no direct link between the SGO and 'serious problem'

nodes, the proximity signifies an association. The most probable link between the two

concepts is the damage node. As evident from the comment below, officers tend to consider

damage as a serious problem.

Property damage causes problems for the natural environment.

The BSM group and the BGO group consider property damage at visitor attractions as a serious problem. Illustrative comments about seriousness of the problem follow:

Personally speaking, graffiti and other forms of property damage is a serious problem. It reduces tourism in Thailand.

Having established that property damage is considered as a serious problem by the three (SGO, BGO, and BSM) stakeholder groups, the following section discusses the relative importance given to various themes by these stakeholder groups. As stated earlier, the more often these concepts are mentioned during the interviews, the closer it appears to a stakeholder group in the figure.

Of those who rated property damage as a serious problem, the BGO group recorded 86% agreement (6/7) within the group, regarding the seriousness of the problem. The SGO group ranked second with 67% agreement (4/6). The BSM group was a close third with 57% agreement (4/7) with the view that property damage was a serious problem at visitor attractions.

The BGO group's comments were linked closely with the 'damage' theme and the 'heritage' theme. The most relevant concepts in the 'damage' theme were repair, tourism, damage, and problem. A typical quotation of 'damage' by a government official was,

Why it is a serious problem (sic) *is because it is not only monetarily expensive to repair, but it also creates a bad impression on our guests who came after the incident and then they come across these damaged properties.*

The importance given to protection of heritage property by government officials in Bangkok is evident from the following quote:

It also damages our heritage and culture of property. But it is not a recognised problem.

The SGO group who rated property damage as a serious problem was also most sensitive to the 'attraction' theme. However, they also noted the loss due to property damage. One government official from Singapore observed that

The attraction will look ugly. It will discourage visitors from coming to the attraction.

BSM was the last group who viewed property damage as a serious problem. This group felt most connected with the 'guards' theme. The site managers interviewed were of the opinion that visitor behaviour is best managed with surveillance. The emphasis was on human surveillance in the form of guards and patrols during the day and night time. Some typical comments made by site managers in Bangkok were as follows:

They should not touch the artefacts and follow the instructions of the tour guide. We have guards posted all over the property to provide vigilance.

5.4.2.2 Discussion – Research question one

According to (Paskaleva-Shapira, 2007; Timur & Getz, 2008a), stakeholder groups are guided by different motives and priorities, thus, stakeholder groups may differ significantly in their attitude towards property damage as a problem. Results in the above section confirms the view in the broad literature. Findings show that with the exception of site managers in Singapore, all of the other stakeholder groups consider property damage as a serious problem. However, the stakeholder groups maintain a different set of priorities (illustrated by the connectivity to different themes) that influence their policies and strategies to address property damage at visitor attractions. It can be suggested that the differences in stakeholder sub-group attitudes is a mediating factor that greatly affect people's decision and involvement in vandalism intervention.

Another significant finding relates to the visitor's intention to damage the property. Interviewee comments related to visitor intention suggest that unintentional damage is not a problem. Earlier in Chapter two, section 2.2.2, outlined the vandalism triangle comprising of

the motivation for any action (Bullock, 2011), the intention of the person (Pearce, 2011), and

perception of opportunity in the physical setting (Ekblom, 2011a). While the damage to wall

paintings due to constant touching by scores of visitors is not the original intention of the

visitor, the common outcome of these acts is damage to property. The destructive behaviours

of tourists (whether intentional or not) may have negative impacts on the visited locations

(Jafari, 1982; Leslie, 2012; Winston & Esty, 2006).

Damage to property could be accidental and not intentional; thus, the behaviour lies

outside the motivational framework proposed by Cohen. The intentionality factor in deviant

behaviours has been discussed and addressed in the framework of crime prevention through

environment design (CPTED), and include applying environment design concepts to

discourage deviant behaviour and to make it difficult to damage attraction property

(Ballatore, 2014; Cozens, P., 2008). Another perspective to intentionality is offered in

promoting mindful visitor actions. Moscardo, Ballantyne and Hughes (2007) reported that

information about safe/unsafe activities and negative outcomes of less desirable behaviours

will guide visitors' behaviours to have minimal negative impact on the attraction.

5.4.3.1 Results – Research question two

Research Question: An evaluation of the site managers' and local government

officers' responses to property damage at visitor attractions.

This section of the study evaluated the current responses of stakeholders to address

property damage at visitor attractions. Relevant text from the interview transcriptions was

analysed with the help of Leximancer software. Figure 5.4 provides a visual summary in the

form of broad themes, in other words, main approaches adopted by stakeholders to address

property damage. The content analysis algorithm identified six dominant themes representing

stakeholder responses: 'control', 'property', 'attraction', 'tourist', 'litter', and 'clean'.

The dominant themes (approaches to reduce property damage) and the key concepts for each scene are outlined below:

THEME 1: *Control*: use, area, CCTV, cameras, patrol, cover, public, and prevent

THEME 2: *Property*: property, staff, damage, time, visitors, people, and measures

THEME 3: *Attraction*: park, guards, example, surveillance, security, hours, rangers, and regular

THEME 4: *Tourist*: tourist and attractions

THEME 5: *Litter*: litter

THEME 6: *Clean*: clean
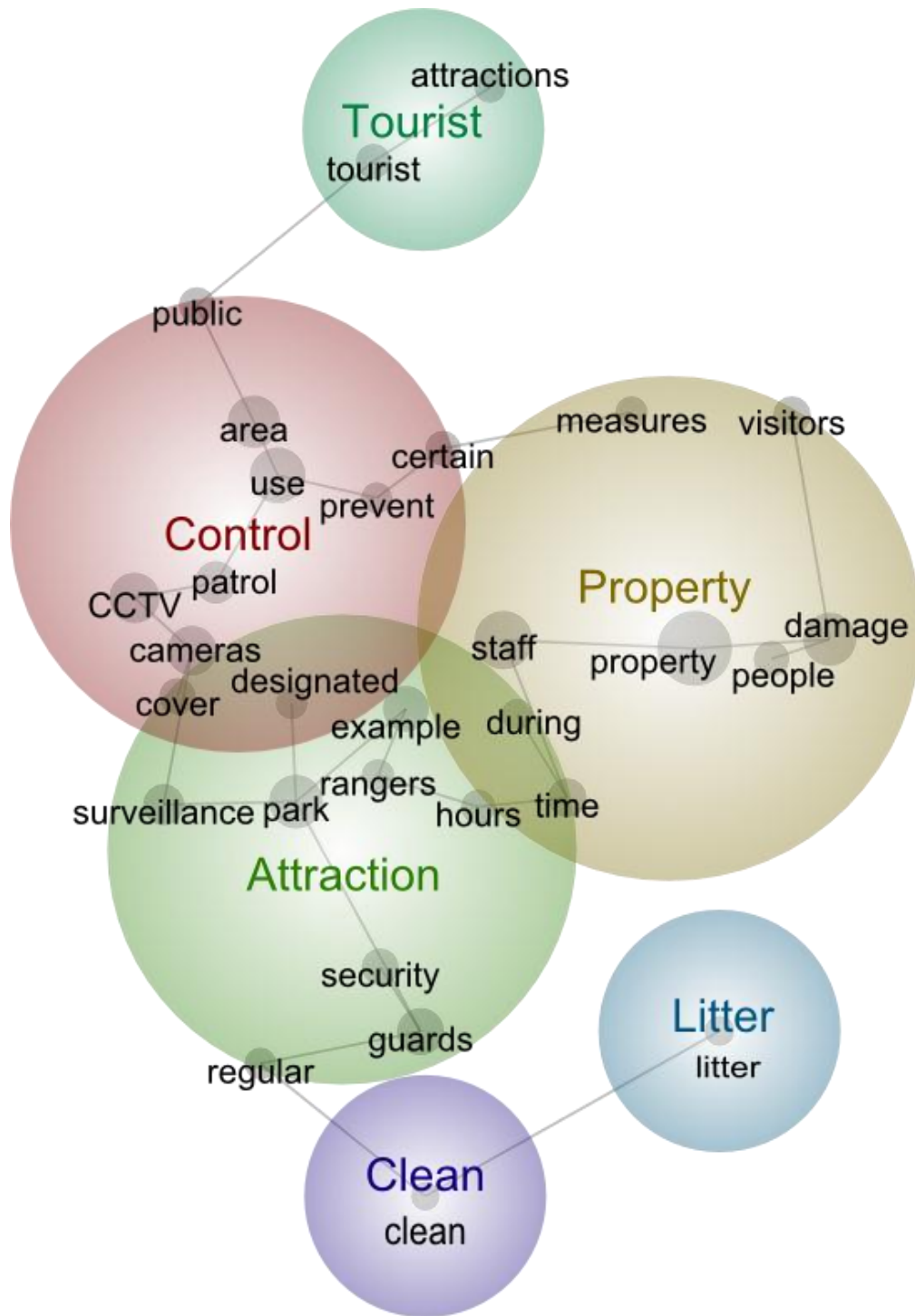
Figure 5.4. Current responses of stakeholder to address property damage at visitor attractions

The connectivity rates of the six themes are presented in Table 5.3. In summary, the

six key themes identified represent the six categories of strategies adopted by stakeholders.

Table 5.3 *Approaches to reduce vandalism: Dominant themes and their connectivity*

S. No.	Dominant themes	Connectivity (%)
1	Control	100
2	Property	94
3	Attraction	84
4	Tourist	13
5	Litter	5
6	Clean	4

'Control' is the strongest theme in the narratives of stakeholder responses to property

damage at visitor attractions. The connectivity of this theme is 100%. In Leximancer, the

connectivity score indicates the relative importance of the theme, with 100% being the most

important (Wu, Wall, & Pearce, 2014). Higher connectivity of concepts such as CCTV,

cameras, cover, and patrol suggest that human and electronic surveillance is a key component

of the current property damage control mechanisms. A site manager from Bangkok

suggested, *'The temple compound is a gated community with designated entrance and exit.*

We have installed surveillance cameras and security guards.'

'Property' emerged as the next most powerful theme with 96% connectivity. The

linked concepts with the theme—staff, time, property, and measures—suggest that site

managers and government officials rely on strategies that involve the attraction employees to

manage visitor attractions. Additional concepts such as time, visitor, and property indicate

use of operation hours and other time-based measures to protect the property from damage.

Typical comments include as follows:

Some sections are enclosed with designated entry and exit points, but most of the

property area is open for public access. We use CCTVs at some public places, but it does not

cover the entire park.

The 'property' theme highlighted the role of small businesses and tenants within a large attraction site. The residents and businesses dependent on the attraction are sharing the responsibility of providing guardianship and maintenance. Comments suggesting active involvement of businesses within attractions include as follows:

The shops and restaurants use their own mechanisms inside their property.

Staff are moving around during the day. However, there are places with less human traffic where property damage is severe.

The preceding statement emphasises the inability of the attraction management to provide guardianship for the entire property, thus, implying the shared responsibility of residents and businesses in and around the specific sites.

'Attraction' (management) theme was another key grouping of concepts with 84% connectivity. It is well connected with relevant attraction management concepts such as security guards, human and mechanical surveillance, security during day and at night, hours of operation, and patrolling rangers. Some typical remarks include as follows:

We have tourist police patrol; provide the information and public relations such as the penalty for littering in the public space or in attractions. We ban drawing of graffiti and check visitors if needed.

'Tourist'-based strategies emerged as an important theme related to curbing property damage. This theme incorporated the importance of reaching out to the would-be perpetrator. Both the site managers and the local government officer groups stressed the importance of visitor management. A site manager from Singapore commented on the importance of information to the visitors:

Provide accurate information about tourist behaviour, what 'should they do' and 'should not do' while visiting the attractions. If I see bad behaviour of a tourist, I always check them and correct their behaviour.

Another administrator from Bangkok expressed his views on visitor behaviour management and commented,

> *We have posters or signs about expected behaviour in the park. We always have guards to protect the park at important points such as entrance/exit and rides.*

Similar remarks regarding the importance of visitor behaviour management were made by government officials. Typical comments include as follows:

> *We provide information to tourists and visitors to Bangkok via our website. We give them Do's and Don'ts leaflet when they arrive in Bangkok or visit attractions or at the hotel reception.*

The 'litter' theme and the 'clean' theme are well connected to the 'attraction' theme. Several interviewees mentioned the litter and clean words in the same sentence during the interview. The words were usually stated simply as in the following:

> *We have a group of cleaners who rapidly clean the litter at regular intervals. The legal department also takes actions against perpetrators.*
>
> *In the case of litter, cleaning staff make regular rounds to keep the park clean. We always have guards to protect park in important points.*

5.4.3.2 Discussion – Research question two

This study confirmed that the 'crime prevention through environment design' (CPTED) principles are instrumental in reducing property damage (Clancey et al., 2012; Cozens et al., 2005; Duarte et al., 2011). The findings show that the stakeholder groups mentioned a range of strategies to curb property damage at visitor attractions. The strategies focused on the agent (visitor) and object (property or attraction). The use of crime prevention through environment design, property design, and management concepts such as surveillance, guardianship, target hardening, and so forth are evident in the stakeholder responses.

Secondly, the findings related to the emergence of 'visitor-focused' strategies as a topic is consistent with the views of (Harris, 2005) who found that the visitor-centred approaches are more effective in communication. This approach emphasises people's understanding of the environment via communication. The style of work also enhances *interpretation*, which encompasses the various ways in which the attraction management communicates with the visitors (Moscardo & Ballantyne, 2008; Moscardo & Pearce, 1986).

A similar perspective has been recorded by Andereck et al. (2005) who suggest that a range of factors (physical setting and site management) influence visitor behaviours at attractions, thus, different strategies are required to address property damage. In agreement, Herstine et al. (2006) in a study of 'nature-based' attractions suggested that, depending on the situation, some approaches are more successful than others in shaping visitor behaviours. In summary and in agreement with the conclusions of Nepal and Lu (2009), the findings confirm that stakeholder perceptions have a significant influence on the operational strategies.

5.4.4.1 Results – Research question three

Research Question: An evaluation of the community engagement strategies in addressing property damage.

In this section of the study, the four stakeholder groups were used as classifying variables in the analysis. The four stakeholder groups are identified and described in section 5.4.2.1. In detail, these four groups were selected as mapping concepts in Leximancer concepts coding setting. The aim of this study was to identify whether or not different stakeholder groups used different concepts to describe their strategies to encourage community engagement.
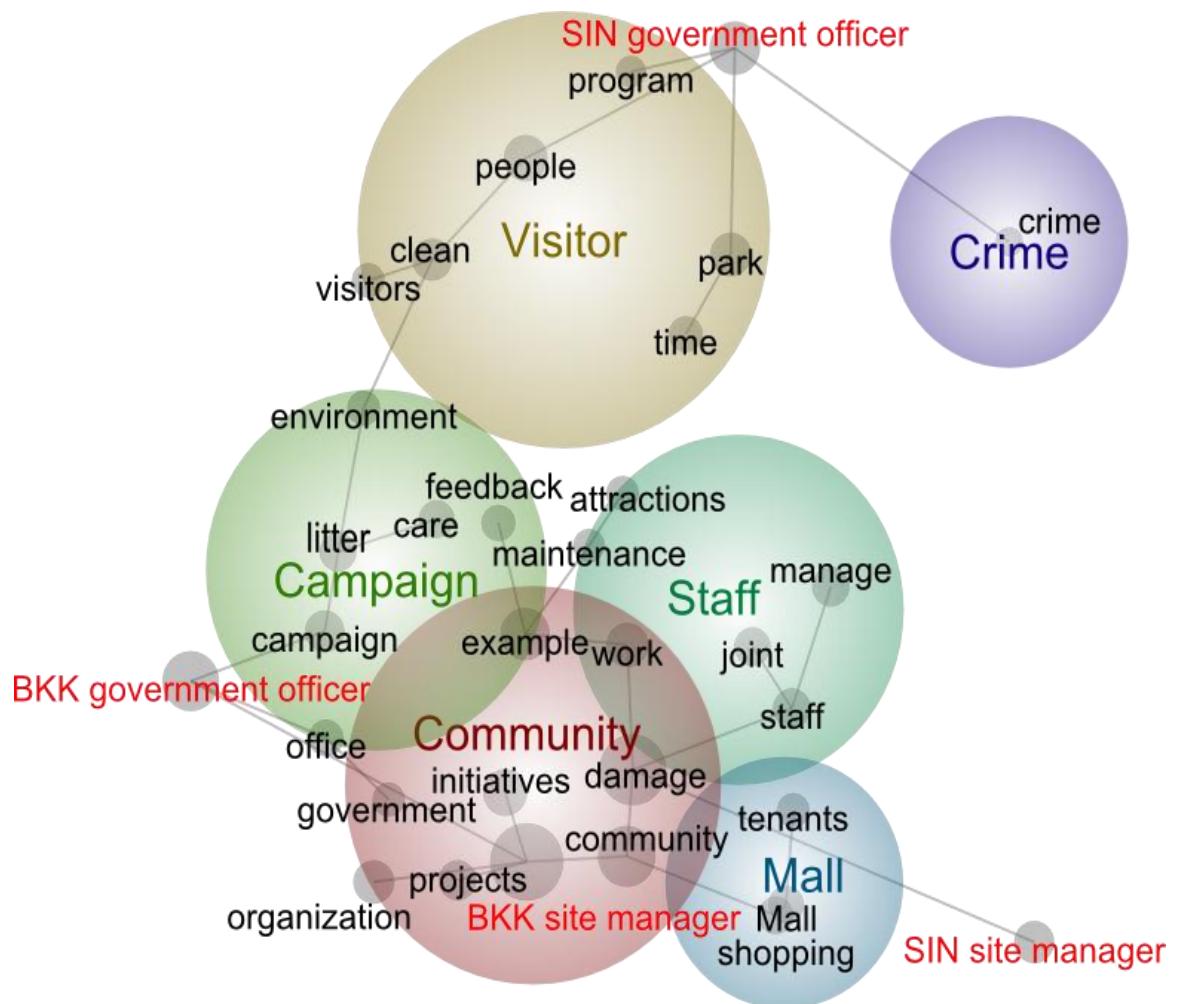
Figure 5.5. Evaluation of the community engagement strategies in addressing property damage

The concept map in Figure 5.5 identified six dominant themes representing

community engagement in addressing property damage. The six themes are 'community',

'visitor', 'campaign', 'staff', 'mall', and 'crime'. The connectivity rate for these six themes is

reported in Table 5.4. A close assessment of Figure 5.6 suggests that the defined stakeholder

groups provide very different explanations of their strategies to encourage community

engagement.

Table 5.4 *Dominant themes and their connectivity in community engagement strategies*

S. No.	Dominant themes	Connectivity (%)
1	Community	100
2	Visitor	40
3	Campaign	36
4	Staff	29
5	Mall	17
6	Crime	2

The Singapore government officer (SGO) group emerged as the most distinctive group. It is well connected with the 'visitor' theme and 'crime' theme. A review of this group's concept links in table 5.4 revealed that the highly connected concepts are 'programme', 'crime', 'people', 'tenants', and 'time'. The close connection with 'visitor' theme and direct links the program, people, and visitors nodes suggested that SGO's emphasis is on involving visitors in monitoring fellow visitor behaviour and correcting undesirable behaviours or acts of property damage. A government official responsible for operations of several attractions in Singapore observed,

> *Some people have been very vocal and speaking up, like they will call us if a lamp*
>
> *was broken or sometimes people like to fish in quiet spots and they would break a*
>
> *lamp, some people will complain that it is not safe and all. You ask them if they are*
>
> *regulars to the park. If they are, they could be our eyes and ears—in fact we had a*
>
> *program that was started some time back but I think it's now defunct—it's called*
>
> *adopt a park.*

Similarly, another government official commented,

> *You can't possibly go clean up all those parks, you know. Then another thing I*
>
> *remember* (sic) *is actually taking litter bins out of some of the parks and nature*
>
> *reserve and then we put a sign telling people why there were not litter bins because*

we encourage people to take their trash out after they are done. Clean up after

themselves.

SGO's close links with the 'crime' theme suggests that the government officials in

Singapore are concerned with crime prevention. A closer examination of the official's

comments revealed that most government organisations in Singapore encourage active

participation of the Singapore police force in crime prevention. Illustrative comments on

crime prevention and involvement of the Singapore police force follow:

Collaborate with police to hold crime-prevention exhibition and talks. Encourage the

community at large to be eyes and ears to look out and report potential vandals.

Scrutiny of the concept map revealed that there was both direct connectivity between

the SGO group and the 'community' theme. The connection to the 'community' theme was

through the 'campaign' theme. This signifies that the SGO group did not encourage direct

involvement of the local community in matters related to property damage but used

occasional campaigns to involve the community. A typical comment follows:

We do not have organised projects to involve the local community.

The second stakeholder group, BGO, was identified most clearly by the 'campaign'

and 'community' themes. As evident from Table 5.5, the most relevant concepts linked

directly with this group's strategies and approaches to involve the community were

'campaign', 'visitor', 'government', 'feedback', 'projects', and 'community'. The group's

connection with the 'visitor' theme and 'crime' theme is substantially weaker than SGO's

links. The group seemed to maintain campaigns as their primary approach to address property

damage at visitor attractions in Bangkok. Typical comments from the BGO group include as

follows:

We work with all government agencies and participate in their campaign. The litter

free city campaign is one example.

To campaign in the attractions, for example, tree planting campaign, garbage collection, campaign to raise awareness for the maintenance of the property.

It is evident from the above comments that interviewees in the BGO group did not have initiatives and strategies resulting in long-term, sustained, and continual involvement of the local community. Community engagement was in the form of participation in campaigns run by government departments. Several government officials in this group are quoted below, wherein they acknowledge the absence of continuous community engagement.

We did not involve the local community in initiatives to address property damage. However, we have involved the community in cleaning campaigns and taking care of the landscape.

Our organisation does not involve the local community in initiatives to address property damage. Local field officers are deputised to each district along the river to monitor the cleanliness and drainage of the river.

The absence of community engagement in the Thai government's decision-making process appears to contribute to lower levels of interest and concern related to property damage within the community. As quoted by an officer,

There is no sense of belongingness within the community, especially small businesses and street vendors. Thus, there are various examples of vandalism.

In another example, an officer responsible for waterways in Bangkok reported,

There are several projects between the various government departments and the community. But these campaigns are not very effective.

Table 5.5 *Dominant community engagement concepts associated with different stakeholder groups*

S. No.	Dominant concepts	Likelihood of co-occurrence (%)
Singapore government officer group		
1	Programme	80
2	Crime	75
3	People	67
4	Tenants	65
5	Time	50
Bangkok government officer group		
1	Campaign	75
2	Visitor	50
3	Government	50
4	Feedback	43
5	Projects	40
6	Community	39
Bangkok site manager group		
1	Shopping	83
2	Joint	50
3	Tenants	50
Singapore site manager group		
1	Staff	33
2	Manage	33
3	Damage	30
4	Crime	25

The third stakeholder group (BSM) and the fourth stakeholder group (SSM) were clustered quite closely in Figure 5.6. This is an interesting observation illustrating similar opinions and attitudes of site managers across the region (Bangkok and Singapore). Assessment of their linked concepts found that the primary difference between these two groups was in their linkages with the 'staff' theme and 'mall' theme. The BSM group's comments were well linked with the 'mall' theme. The relevant concepts were 'shopping', 'joint', and 'tenants' (see Table 5.5). A site manager from Bangkok commented,

We can include the tenants in the shopping mall as the community. The tenants must

follow the policy applicable for everyone.

Compared with the BSM stakeholder group who extended the community concepts to include tenants and emphasised joint action to manage property damage, the SSM stakeholder group was very focused on the actions of their staff and crime prevention. Table 5.5 presents key concepts relevant to this group, 'staff' (33% likelihood of co-occurrence), 'manage' (33%), 'damage' (30%), 'crime' (25%). Typical comments from the SSM group include the following:

No, we do not involve the local community. All operations are managed by the staff. Our organisation does not involve the local community in initiatives to address property damage because we have no policy to involve the local community, we manage everything by ourselves.

While the BSM stakeholder group and SSM stakeholder group differ in defining their priorities influencing their decision-making process, the lack of concrete strategies to involve the community was a common feature. Both groups were unable to describe initiatives and strategies to encourage community engagement on an ongoing basis. Site managers of visitor attractions in Bangkok commented,

We have not involved the local community in our projects. But it is a very good idea and I would like to learn more about using and working with the local community.

Similarly, site manager of an attraction in Singapore echoed the same points:

We do not have planned structured approaches to involve the community.

5.4.4.2 Discussion – Research question three

Lu and Liang (2011) observed that there are a variety of ways the general public (local community) may be involved in the community improvement projects (CIPs). Initiatives to control property damage at visitor attractions within the community is one example of a CIP. The findings revealed that the different stakeholder groups employed different strategies to encourage community involvement in their initiatives to address

property damage at visitor attractions. The government officer groups from Singapore and

Bangkok attempted to use campaigns and involve visitors in their initiatives. However, the

site manager groups from the same locations were unable to give concrete examples of

community involvement in their operations.

By way of contrast, the poor community participation could be the result of a high

level of indifference with regards to property damage at visitor attractions in the community.

Andereck et al. (2005, p. 1068) concluded that 'those who feel tourism is important for

economic development, benefit from it, and are knowledgeable about the greater positive

impact'. This component of the research also identified the role of education and

communication in ensuring community involvement. Poor community participation in

property damage reducing initiatives within the tropical Asian setting could be due to the

feeling of alienation within the community members. Additionally, efforts to share the

consequences of property damage or inaction and the benefits of sustainable development

will result in a sense of belongingness and create urgency to act within the community (Carr,

2012; Li, 2006; Srisuwan, Chantachan, & Thidpad, 2011).

There are some implications here for tourist behaviour education. The preference for

tourist from certain location or culture may also be mediated by the cultural differences.

Moufakkir (2011) in observed that preferences and tolerance of kinds of visitor behaviour are

also influenced by the place that the visitor belong to and the attraction which tourist visit or

might visit.

5.4.5.1 Results – Research question four

Research Question: Evaluation of financial budget considerations to address property damage by different stakeholder groups.

This section of the study adopted an innovative approach of converting 'tag' into 'themes' using Leximancer 4 software. The purpose of this technical procedure within the Leximancer options is that it enables the strength of the relationships between key groups (such as Bangkok site managers [BSM]) and the defining themes with their sub-concepts to be clearly specified. The software's text-mining ability is again used to analyse the content of collections of interviews. The information is displayed by means of a conceptual map that provides an overview of the material, representing the main concepts contained within the text and their connectedness. As noted previously, Leximancer's algorithm groups or clusters the concepts that have some commonality or connectedness and represents this proximity on the concept map as 'themes' (Kuipers et al., 2013). The software provides another function called *tag*—which is important for comparing on the basis of the conceptual content in the text. It is helpful in comparing differing group or individual text sources (Leximancer, 2013).

For the purpose of this study, the four stakeholder groups were set as tags during the text-processing function. The tags were then converted into themes to represent relevant concepts and their connectedness in Figure 5.6. 'Budget', 'BKK site manager', 'BKK government officer', 'SIN site manager', 'SIN government officer', and 'vandalism' were identified as six dominant themes representing financial budget considerations in addressing property damage at visitor attractions. The connectivity rate for these six themes were 100%, 57%, 26%, 26%, 13%, and 6%, respectively.

The term 'budget' was mentioned in 100% of the interviews. A manual count revealed that 100% of the interviewees (26/26) mentioned that the budget for repair and maintenance and surveillance has increased over the past three to five years. The following

section of this analysis focuses on the four themes representing the stakeholder groups,

respectively.
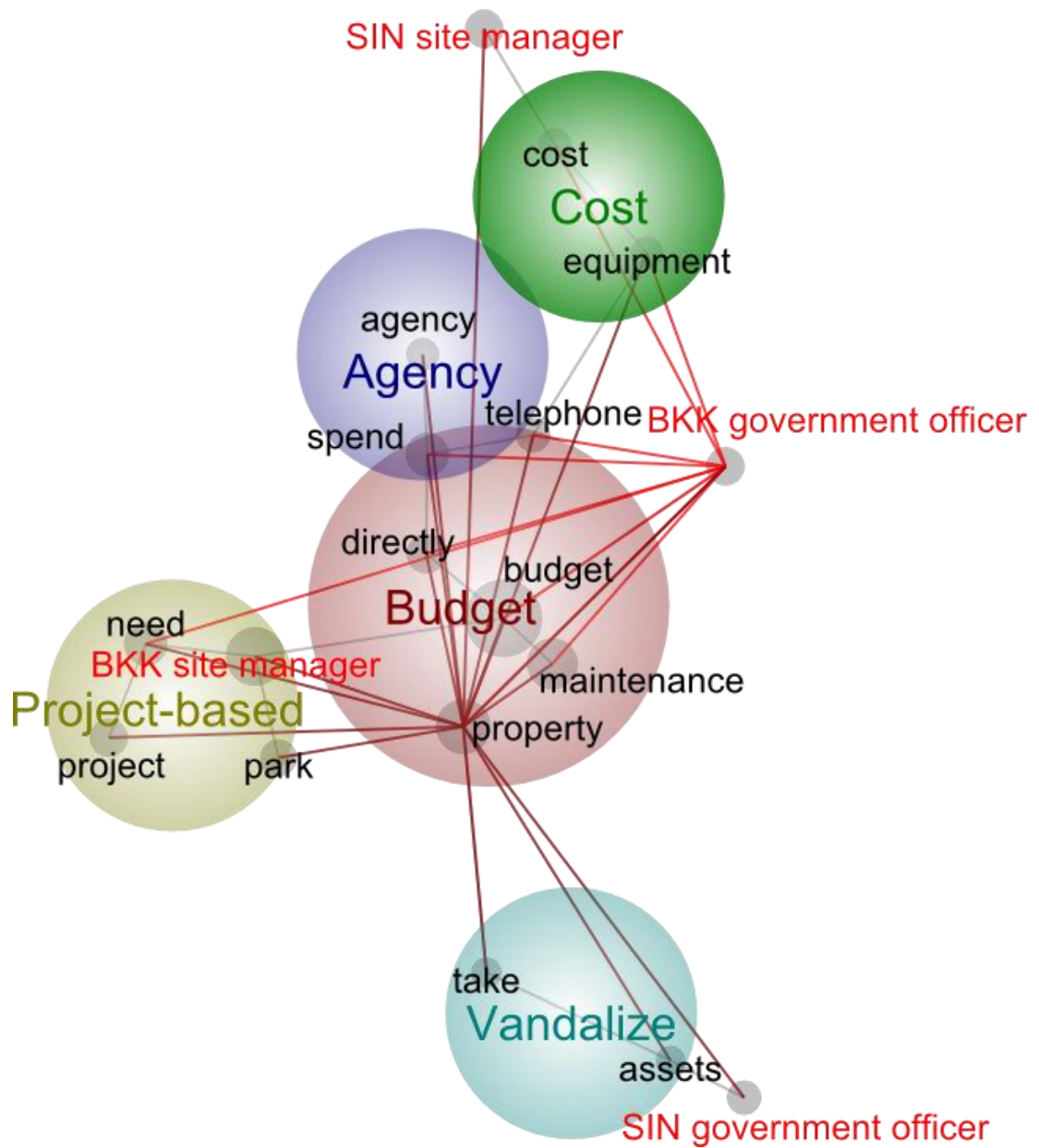
Figure 5.6. Evaluation of financial budget considerations to address property damage by
different stakeholder groups

The dominant financial consideration concepts linked to the different stakeholder

groups are presented in Table 5.6.

Table 5.6 *Dominant financial consideration concepts associated with different stakeholder groups*

S. No.	Dominant concepts	Likelihood of co-occurrence (%)
Bangkok site manager group		
1	Project based	100
2	Directly	67
3	Vandalise	50
4	Agency	50
5	Property	38
6	Budget	33
Singapore site manager group		
1	Equipment	67
2	Cost	50
3	Agency	50
4	Budget	20
Bangkok government officer group		
1	Equipment	33
2	Maintenance	29
Singapore government officer group		
1	Asset	100
2	Vandalise	50
3	Maintenance	29

The discussion commences with the Bangkok site manager (BSM) group. Higher relevance of the 'project-based' concept signifies that most visitor attractions in Bangkok adopt project-based approaches to managing their expenses. As evident from the comment from a privately owned visitor attraction,

Whenever we need funds, we make a report and presented to the management for funding.

Similarly, a manager of a publicly owned attraction commented,

If we have property damage, we will prepare a project for the director of public park office for funding. Thus, it is a project-based approach.

Compared with the BSM stakeholder group who relied on project-based approaches in financing the measures to address property damage, the SSM group was concerned with the costing related matters. In view of the high connectivity of concepts—'equipment' (67%), 'cost' (50%), 'agency' (50%), and 'budget' (20%)—it appears that the site managers of visitor attractions in Singapore are concerned with changes in the overtime cost structure of repairs, maintenance, and surveillance. The procurement costs of the equipment and the agency contract fee were also important considerations for this group. Typical quotation relating to 'cost' and 'agency' are as follows:

> *Every year there is an increase in cost because it depends on the agency—it will be air-flown or sea-freighted, and as you know, over the last five years, the cost of transportation has gone up. Storage and the material cost to manufacture also play a part.*

A review of the concept map in Figure 5.6 reveals that the BGO group and the SGO group are located at the opposite ends of the map. This suggests that the two 'government officer' groups adopt different approaches to budget considerations. The following argument discusses the differences and similarities in the decision-making process of government officers in Singapore and Bangkok while finalising the budget to address property damage.

The high connectivity of the BGO group with the 'equipment' (33%) concept and the 'maintenance' (29%) concept suggests that the government officials in Bangkok are concerned with repair and maintenance of facilities under their control. One illustrative comment about repair and maintenance follows:

> *The budget is based about 1 million Thai baht. We spend a lot on repair and maintenance, especially drainage. The annual budget will be close to 10 million Thai baht.*

Similarly, SGO group is highly connected with the 'asset' (100%), 'vandalise' (50%), and 'maintenance' (29%) suggested that Singapore government officers prefer repair and maintenance strategy to countering property damage. Typical comments include the following:

Budget increases because of cyclic maintenance, asset management, and additional new assets are added for maintenance.

Maintenance of assets and property usually take up a fair amount, which could be estimated at 20% of the total budget.

The primary distinction in the budgetary considerations of the SGO group and BGO group lies in their understanding of vandalism. It appears that the SGO group has a higher awareness of vandalism. In contrast, the BGO group does not maintain a distinction between routine damage and vandalism. An official of a Thai government agency commented,

We do not have a budget, but other ministries have a budget to repair and maintain the city properties. We do not have a formal budget to address property damage.

5.4.5.2 Discussion – Research question four

The discussion above concluded that all stakeholder groups are in agreement that the total expenditure on initiatives to curb property damage has been increasing over time. Several studies in school settings have estimated that a high proportion of budget allocations are allocated to repair and restoration of damaged property (Almond et al., 2005; Fritzon et al., 2001; Tygart, 1988). Destruction of irreplaceable property, loss of aesthetic value during repair, and lost income during downtime are some of the hidden costs of property damage. In the absence of a similar study in tourism, the discussion focuses on the explicit costs as labour and material costs, costs of supervision, and administrative cost of repair process.

The site manager groups are either concerned with the cost structures of repair and maintenance projects or are adopting more pragmatic needs-based projects. On the other

hand, the government officials are preoccupied with maintaining the civic facilities and

public assets. In summary, the stakeholder groups focus their budget considerations on repair

and maintenance (Leiper, 1990). There is a need to focus on costs associated with the

measures to prevent property damage and to educate the visitors and the community to

discuss deviant behaviours (Fyall, 2008; Santana-Jiménez & Hernández, 2011; Wei &

Geoffrey, 2005).

5.4.6.1 Results – Research question five

Research Question: An evaluation of stakeholder perspectives on future initiatives to

address property damage at visitor attractions.

This section of the analysis assesses the influences of stakeholder groups on future

initiatives and strategies to address property damage at visitor attractions. The comments of

interviewees from the four stakeholder groups (SSM, SGO, BSM, and BGO) were inserted as

mapping concepts into the Leximancer analysis. The resulting concept map in Figure 5.7

identifies six key dominant themes.
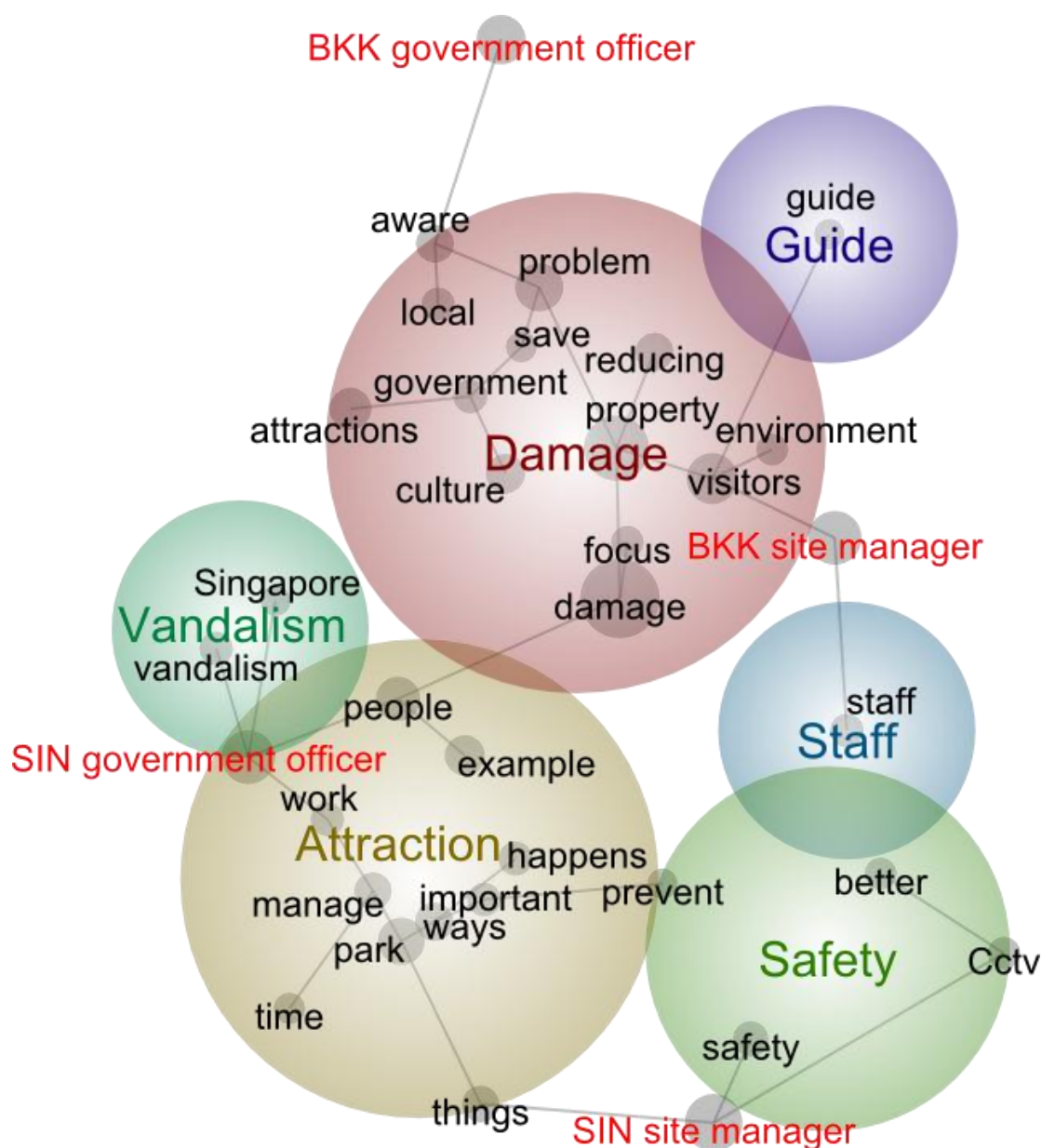
Figure 5.7. Stakeholder perspectives on future initiatives to address property damage at visitor attractions

The dominant themes and their connectivity are represented in Table 5.7. 'Damage' theme and 'attraction' theme emerged as the two most powerful themes. This finding was expected as property damage at the visitor attraction is the focus of this study. The four stakeholder groups were positioned around these themes based on the relevance of the themes and concepts to each of the stakeholder groups. Figure 5.7 presents the output of this analysis. The four stakeholder groups were dispersed across the dominant themes.

Table 5.7 *Future initiatives: Dominant themes and their connectivity*

S. No.	Dominant themes	Connectivity (%)
1	Damage	100
2	Attraction	56
3	Safety	14
4	Vandalism	7
5	Staff	4
6	Guide	3

The SSM group was highly associated with 'safety', 'attractions', and 'staff' themes. The site managers from Singapore considered visitor safety very high on their list of priorities while devising future strategies to curb property damage. Typical comments of site managers include,

> *We changed tiles, we changed the door because the door was frequently damaged— toilet bowl to more rigid and better quality toilet bowl and other toilet facility. One of our mottos here is actually safety first, fun last.*
>
> *Staff can only advise. Visitors should uphold the values and respect the property that they are visiting for their safety. Younger visitors are also ignorant and damage property by accident.*

The second important consideration for this group was the use of staff in initiatives to address property damage. A site manager of a Singapore attraction commented,

> *We are open to new technology such as increasing CCTV coverage. Having said that, presence of staff is very important.*

In contrast, the BSM stakeholder group is strongly connected with the 'damage' theme and 'staff' theme. Reduction of property damage at visitor attraction was the key influence of this group. Typical comments include,

We keep introducing new initiatives such as visitor safety and their visitor experience is the focus of the park management. If the theme park property is damaged, it will have a negative impact on visitors.

The high-connectedness of the 'staff' and 'guide' themes suggest that this group is more interested in devising strategies employing staff and guides to reduce property damage. Some site manager comments resonating with damage-reducing strategies include,

It depends on the person's consciousness. It is up to the common sense of the visitor and the tour guide to educate the visitors and stop them from damaging the heritage property.

An interesting observation is the difference in the perspectives of the site manager groups towards property damage. The SSM group is connected to the 'prevent' concept while the BSM group is closely linked with the 'reducing' concept. This may suggest that the site managers in Singapore are looking towards preventive approaches, while their counterparts in Bangkok are interested in reducing on-site damage in the attractions.

Compared with the SSM and BSM stakeholder groups who show strong influences in the form of visitor safety at attractions and damage reduction, respectively, the government officer groups (SGO and BGO) considered general education and awareness of property damage problem their main influence on future strategies. The connectivity of SGO group with the 'vandalism' theme and BGO group's connectivity with the 'damage' theme suggested that both groups are concerned with property damage at visitor attractions. Some SGO respondents considered education and creation of a value system as a key influence on future strategies:

Increase in social consciousness and educated masses will then probably result in less property damage in the future.

More attention should be given to families teaching good values. Reduce vandalism to encourage sustainable tourism.

Similarly, BGO interviewee comments included the following:

The way to reduce property damage should be to create good social values in the visitors and to make them feel concerned about the problem of property protection.

Everybody underestimates his or her fault for the property damages. I think everyone both the government and private sector should create the common culture and rule in order to save the environment.

Reasonably high connectivity to the 'visitor', 'focus', 'people', and 'example' concepts signify that the respondents from the SGO and the BGO groups encouraged the key players in the sector to go beyond reactive approaches and adopt proactive strategies to control property damage. Typical comments from these groups include as follows:

We are going to introduce signage in more languages such as Chinese to cater to changing visitor demographics. We are moving towards multilingual staff to guide visitors from Thailand and outside.

Visitors should be made aware of do's and don'ts when they visit an attraction. Fines do not work all the time as it is difficult to catch and charge vandals.

5.4.6.2 Discussion – Research question five

This section of the study focused on the future involvement of site manager and government officer sub-groups. The various stakeholder groups exhibited different preferences for future strategies to reduce property damage at visitor attractions. The site manager groups were interested in operational triggers such as visitor safety and reducing

damage to site resources. On the other hand, the government officers were motivated to create awareness of the problem through education and culturally relevant value systems.

These short-term (site managers') views and long-term (government officers') views present an interesting combination of influences on future strategies to address property damage. There is evidence in the current literature that combination of long-term and short-term strategies are useful in addressing vandalism. For instance, Tynon and Chavez (2006b) in a study on crime and violence at visitor attractions concluded that different approaches to reduce property damage are required to address wide-ranging acts of damage.

The discussion could be linked to the technical and non-technical measures to vandalism control. Technical measures are most effective when appealing to perpetrators who are motivated by challenge or who are involved in risk-taking such as deliberate acts. Since most incidents of crime are not deliberate, employing non-technical intervention to appeal to visitors is useful in encouraging desired behaviours. Thus a combination of technical and non-technical techniques is most effective in addressing the complex phenomena of vandalism. (Ekblom & Tilley, 2000; Offler et al., 2009).

It is becoming clear that broad-based education and awareness campaigns may be a step towards increased understanding of the industry and, ultimately, greater support of the benefits to a community.

5.4.7.1 Results – Research question six

Research Question: Psychographic factors and presentations of property damage at visitor attractions.

In this section of the study, the four stakeholder groups with different attitudes (current orientation and future orientation) are analysed. In detail, texts from interview questions relevant to levels of property damage in the past, at present, and in the future were selected as mapping concepts in the Leximancer concept coding setting. The purpose of this

study is to identify whether or not different stakeholder groups perceive levels of property

damage differently over time.

In order to enrich the analysis, Table 5.8 provides descriptive statistics of the

stakeholder responses to questions related to levels of vandalism and time orientation. As

noted in Table 5.8, the SGO group's responses show that 60% of the respondents felt that the

level of property damage has reduced over time. Their view is supported by the BSM group

with 57% respondents observed improvement in levels of property damage. In contrast, a

large proportion of respondents (86%) in the BGO group observed that the current levels of

property damage were not better when compared to past. A scrutiny of Table 5.8 reveals that

the interviewees in SSM group were in agreement with the BGO group.

Table 5.8 *Current and future attitudes of stakeholder groups towards property damage*

Stakeholder group	Response	Lesser today compared to past		Lesser in future compared to today	
		N	%	N	%
Government officers	Yes	4	33%	6	50%
	No	8	67%	6	50%
Site managers	Yes	7	50%	8	57%
	No	7	50%	6	43%
Singapore government officer	Yes	3	60%	3	60%
	No	2	40%	2	40%
Singapore site manager	Yes	3	43%	5	71%
	No	4	57%	2	29%
Bangkok government officer	Yes	1	14%	3	43%
	No	6	86%	4	57%
Bangkok site manager	Yes	4	57%	3	43%
	No	3	43%	4	57%

Although the sample is small, it can be concluded that the SGO group and the BSM

group were optimistic regarding the current orientation of property damage. The BGO and

SSM groups were pessimistic regarding current levels of property damage.

The descriptive statistical analysis of the future time orientation revealed that there is

no change in the attitudes of the SGO and BGO groups. The SGO group (n = 3) continues to

maintain an optimistic attitude towards future levels of property damage. Similarly, the BGO

group (n = 4) continues to be pessimistic about the levels of property damage in the future.

However, the statistics show significant change in the attitudes of the SSM group with (n = 5)

of respondents being optimistic about future levels of property damage. In contrast, the

respondents in the BSM group show a change in the attitude with (n = 4) maintaining

pessimistic view of future levels of property damage.

Responding to the above results, the texts from the interviews was inserted as

mapping concepts into the Leximancer analysis. The concept map in Figure 5.8 provides a

visual presentation of the various concepts and connectivity between the concepts. The

resulting themes are illustrated in coloured representative circles. The stakeholder groups

were introduced as 'tags' and positioned next to the themes most relevant to the comments of

respective stakeholder groups. This approach provides an in-depth qualitative analysis of the

attitudes and views of various stakeholder groups. It extends the above descriptive statistical

discussion by linking it to the concept of themes in Figure 5.8.
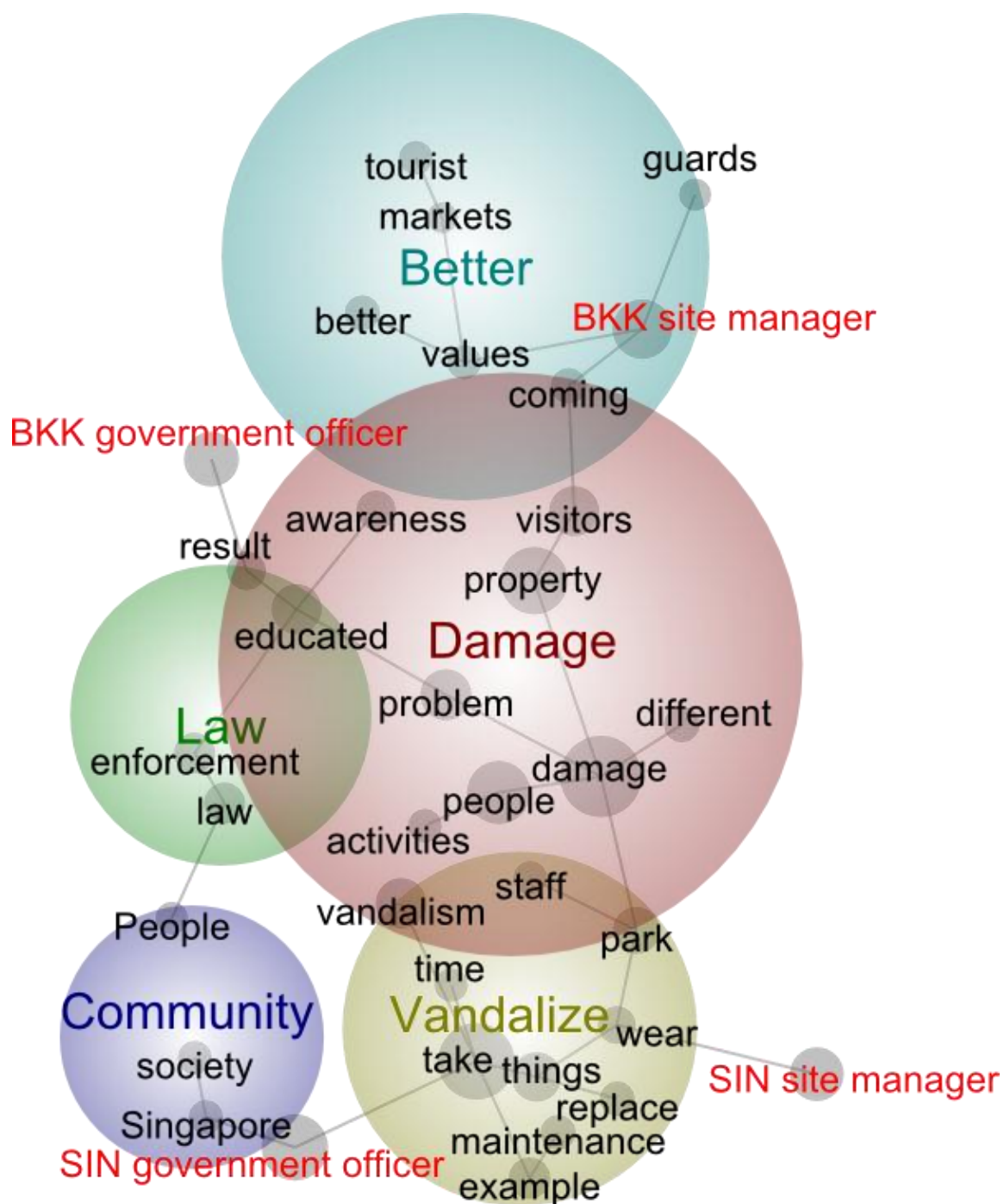
Figure 5.8. Different stakeholder groups' representation of their attitude towards property damage over time

The SGO group was classified as optimists and is linked most with the 'community' and 'vandalise' themes. An assessment of this group of stakeholders' concept links reveal that the highest connected concepts were 'society', 'enforcement', 'staff', 'example', 'maintenance', and 'educated'. In general, this group was optimistic in terms of reduction in

property damage at visitor attractions over time. Typical comments from this group included the following:

> *I have been in this industry for the last thirty-three years. The general environment in Singapore has improved a lot over the years.*
>
> *Singapore has strict laws on vandalism, and in general, there is not much happening. Tight enforcement of fines and behavioural advices has reduced incidence of vandalism.*

The second group with attitude classified as 'pessimist' was the BGO group. This group identified most clearly with the 'damage' and 'law' themes. As evident in Table 5.8, the concepts most closely associated with this stakeholder group's attitudes were 'new markets', 'law', 'tourists', 'damage', 'activities', and 'awareness'. The BGO group's connections with concepts under the 'community' and 'vandalise' themes were substantially weaker than the optimist SGO group. An official from the tourism department remarked that a large number of tourists from emerging markets come to Thailand. In another example, a representative of a law-enforcement agency commented,

> *Weak enforcement of law and policies is the main reason or increasing levels of vandalism. Lack of awareness and education of people also result in poor behaviour.*
> Another official remarked,
> *People and street vendors do not follow the law. They do not feel the responsibility to keep their city damage-free. We need more strict rules and regulations to protect our property.*

The SSM group was the third group. The concept connectivity is evident from Table 5.9 below. The connections with concepts suggest that SSM group paid high attention to repair and maintenance. This could be illustrated by a site manager of the private visitor attraction, who remarked,

It has not aggravated to a worst case or worst situation. It's quite constant. Not sure of the actual reasons. People are more prone to silly behaviour.

Table 5.9 *Dominant attitude related concepts associated with different stakeholder groups*

S. No.	Dominant concepts	Likelihood of co-occurrence (%)
Singapore government officer group		
1	Society	80
2	Enforcement	67
3	Staff	67
4	Example	57
5	Maintenance	50
6	Education	40
Bangkok government officer group		
1	New markets	67
2	Law	57
3	Tourists	50
4	Damage	50
5	Activities	50
6	Awareness	40
Singapore site manager group		
1	Wear and tear	75
2	Replace	67
3	Maintenance	50
4	Damage	35
5	Different	32
6	Problem	31
Bangkok site manager group		
1	Guards	100
2	Values	100
3	Unfairness	60
4	Better	60

Similarly, comments from other site managers suggest that while property damage is recognised as a problem, the current approach to address the problem is mostly reactive, that is, repair and maintenance and restoration. Typical comments include,

It's more of a nuisance than a problem. It has not caused serious damage, but it is part and parcel of a public place management.

The BSM stakeholder group was the final group considered in this analysis. Figure 5.9 revealed that the group has high connectivity with the 'better' and 'damage' themes. The respondents in this group were of the opinion that the levels of property damage in Bangkok have reduced compared to the past. This is supported by the high connectivity to concepts like 'guards', 'values', and 'better' (see Table 5.9 for details). Typical comments of site managers in Bangkok pointed in the direction of a reduced level of property damage,

People are more civilised as compared to the past. With higher education and better values, property damage has reduced over the years.

Because of the technology in the form of CCTV, better trained guards will be able to provide better monitoring and good management.

However, BSM group's optimism arising from the improvements observed when compared to the past transformed into pessimistic future attitudes regarding levels of property damage at visitor attractions. According to a site manager interviewed, the growth in uncontrolled visitation to attractions is a serious problem in the future. According to them,

Increasing the visitors will put pressure on the system. It will also increase damage to natural property.

Similarly, another site manager expressed his pessimism and remarked,

Most of the current problem is the destruction of heritage property and public property damage, which is considered to be a significant problem. There is lack or education, awareness, and publicity of property damage.

It is evident from the above quotes and strong linkages to concepts—'different visitors' (43%), 'problem' (31%), and 'property damage' (36%)—that site managers in Bangkok do not maintain positive attitudes related to levels of property damage in the future.

5.4.7.2 Discussion – Research question six

In summary, the government officer groups, SGO and BGO, exhibit opposite but consistent attitudes towards levels of property damage over time. The SGO group is optimistic with regards to current levels of damage and expects the situation to improve in the future. They felt that property damage is being addressed by relevant bodies. The BGO group maintains opposite sentiments to the SGO group. However, their pessimism about levels of property damage is consistent over time.

Compared with the government groups who were consistent over time, site manager groups were very different in their attitudes. The time track for the SSM group shows a sharp change in their attitudes from a pessimist current orientation to an optimist future orientation. On the other hand, the BSM group's attitude shows a change from an optimistic current orientation to a pessimistic future orientation. At a conceptual level, the findings reflect social representative theory that there are competing and sometimes contradictory versions of reality existing side by side in the same community (Mayers, 2005; Pearce, 2009). The meaning of tourism and related phenomenon may vary significantly among different people, even when they are in the same community (Butler & Wall, 1985; Wall, 1993; Wu & Pearce, 2012).

The time-trend change in site manager group's attitude towards vandalism is consistent with the community survey findings in chapter 4. As reported in section 4.4.3.2, community attitudes in Singapore and Bangkok change from a pessimistic current orientation to an optimistic future orientation. Interestingly, the regression analysis in section 4.5.4.6 also reveals a relationship between site management action and community action.

5.5 CONCLUSION

This chapter has presented findings and discussion to evaluate stakeholder responses to property damage at visitor attractions. Attitudes and responses of key stakeholders such as site managers and government officers were explored in the chapter. Information was obtained from semi-structured interviews with site managers and government officers responsible for visitor attractions in their surrounding neighbourhoods in Singapore and Bangkok. Leximancer software was employed to conduct a computer-generated content analysis of the texts from the interview transcriptions. A summary of the findings and associated discussion is provided below. It is again noted that this chapter extends the research initiated in the previous chapters.

The concept map created with the help of the Leximancer software illustrated that the stakeholder groups identified strongly with property damage at visitor attractions under their supervision. The concept map suggested that visitor behaviours and their usage pattern of tourism property were perceived as closely linked with property damage at those sites. The emergence of the community as a dominant theme signifies the importance of the community's current role and future participation in initiatives to address property damage. The significance of the community role in attraction management has attracted considerable interest in tourism literature. Several studies in rural and urban settings, man-made and natural attractions and cultural and natural attractions have discussed community engagement and participation as a key stakeholder activity (Benckendorff, 2004; Fyall, 2008; Henderson, 2010; Timur & Getz, 2008a).

Vandalism has been considered a serious problem in attractions (Ghazal et al., 2012; Hazard, 2009; Lu, 1992). Research question one explores stakeholder attitudes towards property damage/ vandalism in Singapore and Bangkok. With the exception of site managers in Singapore, the other stakeholder groups consider property damage as a serious problem.

The findings also suggest that the stakeholder responses are influenced by different priorities. Stakeholder groups give different emphasis to heritage value, environmental protection, surveillance, repair and maintenance, and so forth. The findings confirm Nepal and Lu (2009) conclusions that the differences in stakeholder's perceived importance to priorities is influential in the actual design and implementation of operational strategies to address property damage (Fyall, 2008).

Research question two investigated whether the stakeholder groups respond differently to property damage. The findings show that the stakeholder groups adopted a range of strategies to address property damage at the visitor attraction under their supervision. Two distinct set of strategies emerged in the study findings. The first set of strategies were directed at the visitor and attempted to influence visitor behaviour. The second set of strategies targeted the property and management of the physical setting. The focus was to make it difficult to damage different features of the property (target hardening) and to carry out timely repair and maintenance (Ekblom, 2011c; Katy, 2007) This may be seen as a contrast between managing the hard architecture of the place (Sommer, 1969) and the softer social influences (Moscardo & Ballantyne, 2008).

Offler et al. (2009) and team studied the public transport system in Australia to develop a typology of technical and non-technical responses to vandalism. The results in this study confirmed the use of wide ranging strategies in responding to vandalism in a related setting in form of physical attractions. The broad tourism literature presents several examples of multiple approaches which included strategies to influence visitor behaviour, robust design of the physical setting of the attraction, target hardening, education and by adopting an inclusive approach to involve the primary stakeholders such as the community, site management and the local authorities. The use of proactive intervention strategies in combination with reactive approaches result in a sustainable development model that

maximises the benefits to the society by presenting economic opportunities in form of

sustained tourist flows (Christensen et al., 1992; Geason & Wilson, 1990; Peter, Theo Van

Der, & Hans, 2013; Pizam, 1999; Reynald, 2011a,2013).

Research question three successfully determined the most crucial element in the

evaluation of stakeholder responses. The findings confirmed that the various stakeholder

groups considered community participation as an important element in the initiatives to

address the property damage problem. This finding confirmed the conclusions of tourism

studies which signify the contribution of local community in sustainable development

practices (Agrusa, Tanner, Henkel, Agrusa, & Henkel, 2006; Bishnu & Pam, 2009; Cozens,

2008). It was found that although the importance of community participation was

acknowledged by most respondents (interviewees), there was limited evidence to suggest

structured and planned strategies to engage the community.

Government officials in Singapore and Bangkok failed to identify any long-term,

continuous programs to encourage the community to participate in joint actions/programmes.

The stakeholder groups who were site managers were generally more receptive to community

participation. This could be due to their perceived benefit of shared resource implications

associated with managing the operations of the attractions.

Research question four investigated whether different stakeholder groups were

influenced by different financial considerations. All respondents agreed that their budget and

total expenditure on property protection and maintenance has been increased over the years.

The four stakeholder groups studied in this project adopted significantly different budgetary

considerations. The site managers in Bangkok followed a project-based approach guided by

needs-based budgetary considerations. In contrast, site managers in Singapore focused on

innovative and cost-effective strategies of rapid repair and maintenance. The government

officers, on the other hand, were guided by significantly different financial considerations.

The officials in Singapore and Bangkok concurred on the importance of expenditure increases in maintaining and developing tourism infrastructure. The officials did not mention an established framework to identify damage and expenditure due to property damage/vandalism by visitors.

Research question five identified the primary influences exerted by stakeholder groups in the design and development of future strategies to reduce property damage. The findings revealed that the site manager groups are interested in efficient operations and management of visitor attractions. The Singapore site managers were focused on visitor safety and initiatives to prevent any form of on-site damage. The site managers in Bangkok were motivated by strategies to reduce on-site property damage. In contrast, the government officer groups in Singapore and Bangkok would like to see the development of a culture where an increase in awareness of the impact of property damage would encourage more civic behaviours from visitors and generate higher levels of community engagement in protecting community properties such as the visitor attractions. Garrod, Fyall, & Leask, (2006) argued that objectives and priorities of a particular stakeholder group are guided by their philosophical underpinnings. Another notable influence on decision making and responses is the cultural distance between groups under different national cultures (Reisinger & Crotts, 2010). These variations demand development of a coordinated approach to management principals (Jamal & Stronza, 2009; Paskaleva-Shapira, 2007). Section 6.3 in Chapter Six proposes a management framework to achieve synergistic value for collaborative efforts.

Research question six sought to further validate claims in the existing literature where the psychographic profile of stakeholder groups can be related to the level of success of campaigns to reduce property damage and to protect property of heritage and tourism value (Muller & Cleaver, 2000; Pearce, 2005b). Citations in the literature suggest that people with

optimistic views or pessimistic views respond differently to developments in their environment. The different attitudes have also been shown to relate to different patterns of behaviours (Burke et al., 2000). The findings returned mixed results wherein the SGO group and the BSM group were optimistic regarding the current orientation of property damage while the BGO and the SSM group were pessimistic regarding current levels of property damage. The government officer groups in Singapore and Bangkok revealed consistent attitudes from current orientation to future time orientation. The SGO stakeholder group was optimistic, while the BGO group showed pessimistic attitude towards levels of property damage from the past to the present and towards the future. In contrast, the site managers' attitudes changed significantly with the SSM group indicating optimism in future and the BSM group changing their attitudes to pessimistic in the future. The findings reveal a similar pattern in site management attitudes and the community attitudes.

 In summary, the above set of findings build a basis for a discussion leading to an evaluation of key Thai and Singaporean stakeholder responses to vandalism. The study identified influences and considerations of the stakeholder groups responsible for implementation of the current and future strategies. The chapter has provided an opportunity to analyse and understand the differences and similarities in stakeholder responses and revealed that location and stakeholder roles jointly influence behaviours and perceptions about managing vandalism.

The next chapter will integrate the research findings and discussion presented in this chapter with that of findings from other studies related to stakeholder responses to property damage at visitor attractions. Chapter six will also provide a comprehensive summary of the various research projects conducted within this thesis.

CHAPTER 6

CONCLUSIONS, IMPLICATIONS, AND FUTURE DIRECTIONS

6.1 INTRODUCTION

Stakeholders play a key role in the success of the tourism industry. Participation and responses of key stakeholders such as the site managers, local government authorities, and the host community are crucial to achieve the gains of tourism and ensure sustainable development of attractions within a destination. This thesis examined particularly the stakeholder responses to vandalism by visitors at visitor attractions in the tropical Asian context of Singapore and Bangkok. The research employed a post-positivist and constructivist methodology to investigate stakeholder attitudes, levels of community participation, the nature of stakeholder intervention strategies, and future intentions related to visitor vandalism and its control. By applying the defensible space and CPTED constructs from environmental design and management in this research, the extent and nature of vandalism at visitor attractions was explored. Further, the responses of the community, site managers and government officers were investigated through a questionnaire survey and semi-structured interviews.

In general, the research summarised in this thesis has expanded upon the existing body of scientific knowledge and understanding in four main ways. First, it revealed the value of applying an existing theoretical frameworks, notably defensible space and the CPTED approach, to crime prevention in a different context. Additionally, the focus was extended to behaviour intervention instead of motivations for the behaviour. Second, the physical audit study identified important site characteristics of the attraction's properties design and management in a tropical Asian context. Third, for the first time, arguably, it compared positive and negative attitudes towards vandalism within the local community, in different countries, across a wide range of attraction sites. Fourth, the study evaluated differing perspectives of sub-groups of site managers and government officials stakeholder groups. Finally, in this chapter a framework of property damage control and prevention at visitor attractions is proposed. This model is based on the core premise that a systematic and coordinated effort is required to address the complex problem of tourist-linked vandalism.

The present chapter links the findings and conclusions of the studies to the overall research problem. Section 6.2 provides overview of results, section 6.3 indicate the significance of the findings of this research project, section 6.4 reports the managerial implications of the research findings, section 6.5 discusses the limitations of the research, section 6.7 outlines implications for further research, and section 6.8 draws a final conclusion.

6.2 RESTATEMENT OF OVERARCHING AIMS OF THE THESIS

The main reason for conducting the three research studies in this thesis is to achieve the following overarching aims:

Aim 1: To extend and explore the application of vandalism by visitors at visitor attractions in a tropical Asian (non-Western) context.

Aim 2: To compare and examine stakeholder responses and their effectiveness in addressing vandalism.

Aim 3: To evaluate whether there are distinctive stakeholder sub-groups holding different attitudes towards vandalism and its prevention.

Aim 4: To compare stakeholder attitudes and perceptions towards vandalism and its prevention in future across two culturally, economically, and socially divergent but popular tourism destination in Asia

Aim 5: To identify best practices in vandalism prevention and future research direction in the context of sustainable tourism practices.

In order to achieve these goals, three related studies were conducted. As per Figure 6.1, the first study involved a physical audit of visitor attractions in Bangkok and Singapore. The second study was framed from the initial results of the first study; it entailed a survey of the local community of the visitor attractions covered in study 1. The third and final study involved semi-structured interviews of site managers and government officers to evaluate their responses to property damage at visitor attractions in Singapore and Bangkok. The key findings and discussion points arising from the three studies are summarised in the subsequent section.
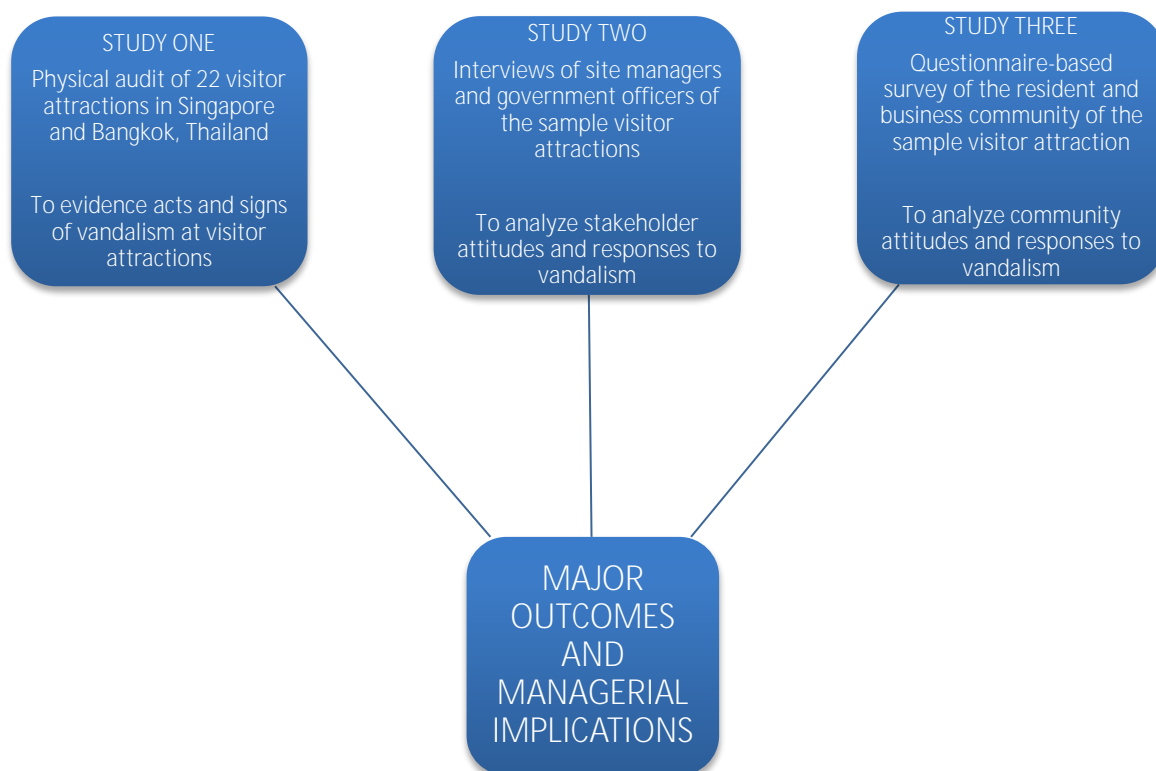
Figure 6.1. Overview of the three sets of studies conducted in this thesis

6.2.1 Synthesis of previous studies: achievement of aims

Table 6.1, which is a reproduction of Table 2.6, outlines the achievement of thesis

aims in the research studies summarised later in this section.

Table 6.1 *Thesis aims addressed in research studies in the thesis*

Research Aim	Physical Audit	Community Survey	Stakeholder Interviews
One	Yes	Yes	Yes
Two	Yes	Yes	Yes
Three	-	Yes	Yes
Four	-	Yes	Yes
Five	Yes	Yes	Yes

Aim 1: To extend and explore the application of vandalism by visitors at visitor

attractions in a tropical Asian (non-Western) context. Findings from the first study suggest

that the environment design properties of territoriality, surveillance, access control, activity

support, repair and maintenance, and target hardening are relevant in the non-Western context of tropical Asia. Attractions with attention to these properties recorded lower levels of property damage and vice versa. The succinct case descriptions and the cluster analysis revealed that visitors at well managed attractions show desired behaviours and get involved in sustainable practices.

Aim 2: To compare and examine stakeholder responses and their effectiveness in addressing vandalism in Singapore and Bangkok. The comparative approach highlights the findings of this thesis and connects findings with specific contexts that are essential to an understanding of stakeholder responses. The three research studies in this thesis employed a combined emic and etic approach to identify and analyse stakeholder responses to vandalism. The current responses and future initiatives of the local community, site management, and local government were explored via the physical audit, questionnaire-based survey, and interviews. The stakeholder responses varied significantly across attraction sites and locations. Moreover, different stakeholder groups adopted a different suite of responses to vandalism. Stakeholder perceptions on effectiveness of their actions were also analysed in detail. The groups varied in their perceived effectiveness of actions in addressing vandalism.

Aim 3: To evaluate whether there are distinctive stakeholder sub-groups holding different attitudes towards vandalism and its prevention. The second research study in this thesis employed the psychographic variables optimist and pessimist to study community attitudes towards vandalism. The finding revealed that community members had different attitudes towards vandalism as a problem. Another approach was to analyse stakeholder attitudes in terms of current orientation and future orientation to identify differences in optimistic and pessimistic attitudes. The findings revealed significant differences in time orientation across community groups. Similarly, the site managers and the government officers groups' attitudes were analysed in study 3. The results showed that site managers and

government officials had different attitudes towards vandalism as a problem and intervention strategies to address the issue.

Aim 4: To compare stakeholder attitudes and perceptions towards vandalism and its prevention in future across two culturally, economically, and socially divergent but popular tourism destination in Asia. Stakeholders in Singapore and Bangkok were asked to evaluate the seriousness of vandalism as a problem. All stakeholder groups at both locations considered vandalism as a serious problem. The stakeholder groups in the two locations were significantly different in terms of current participation and desired involvement in initiatives to address property damage. The different opinions were observed on the basis of location of the respondents and specific sub-group. Community members in Bangkok were optimistic in the future and felt that vandalism will not be a big problem moving forward. On the other hand, respondents from Singapore did not think vandalism will be contained in future. Site managers and government officers in Singapore and Bangkok were different in their views and attitudes towards vandalism and in the responses to vandalism.

Aim 5: To identify best practices in vandalism prevention and future research direction in the context of sustainable tourism practices. This research project evaluated stakeholder responses and interventions to curb vandalism. A wide range of direct (surveillance and guards) and indirect (education and mindfulness), short-term (repair and maintenance) and long-term (awareness and prevention), person-oriented (signage) and property-oriented (target hardening), technical and non-technical, and individual versus group measures were studied. These measures were analysed for levels of stakeholder involvement, effectiveness in addressing vandalism, and effect on sustainable development of visitor attractions. Section 6.3 presents a detailed discussion of best practices to address vandalism and section 6.5 explores future research opportunities.

6.3 THEORETICAL IMPLICATIONS OF THIS STUDY

The theoretical implications of this thesis are broad, and build on the influence of many variables analysed in the research aims. The present set of studies offer an organised contribution to tourism-linked visitor vandalism by adopting a comparative approach to two tropical South-East Asian settings. It was seen as possible that the locations therefore represent different influences on stakeholder responses, and it was argued that the stakeholder attitude, responses, and levels of involvement would reflect the inherent differences in these settings (Panchal, 2013). For the most part, the findings of the research studies presented in this thesis will support this view.

The extent and nature of vandalism, stakeholder groups' attitudes and responses towards vandalism, and desired levels of involvement in Singapore were different to those observed in Bangkok. The differences, however, between these two settings were marginal, suggesting that a consistent, structured, and coordinated set of intervention strategies can be implemented across the physical setting of the two locations. Hence, this research makes a significant contribution to the ever-expanding discourse related to visitor behaviour management at visitor attractions at destinations. This section identifies the major implications from this study at a more detailed level. Further, a view is also offered that this study has the potential to export knowledge to other academic fields and to the world of practice (cf. Jafari, 2005). Each of the aims studied in this thesis is discussed in the sections that follow.

6.3.1 Doing comparative research in a non-Western, cross-cultural, urban tropical Asian context

As stated in section 1.3 in Chapter one, a pivotal component of this thesis lies in conducting a comparative study in a tropical Asian context. The specific objective of such a study is to make comparisons of attitudes and behaviour between cultures, thereby extending

the representativeness of the findings. The comparison of stakeholder responses in Singapore and Bangkok is a good example of comparative line of inquiry. At a more macro-level, public participation is a reflection of the democratic spirit and a process through which the power of decision making is put in the hands of the community. There is little evidence of research work on the public participation and involvement in correcting deviant behaviour in tourism in Asia. Current literature on Asia suggests a growing interest in the public role in shaping policy and opportunities of participation (Jiang, Land, & Wang, 2013; Lu & Liang, 2011).

Contrary to the popular Western belief, that high crime rates are concentrated in lower-class neighbourhoods due to general lack of coping strategies and other sociological factors, this current study suggests that deviant behaviour and property damage is not restricted to certain districts. The study findings support the results of work by Nalla, Johnson, & Hayes-Smith (2011), where 'fear of crime' was observed to be present across the social stratum in a society.

In a global context, comparative research contributes to knowledge and enhances understanding of any single system. This research methodology requires the researcher to be more explicit with 'specific elaboration and identification of the factors and issues to be discussed, particularly in contrast to case studies which are often general and descriptive' (Pearce & Butler, 1993, p. 25). It is noteworthy that the use of this type of methodology is limited in tourism and has been, for the most part, used as a basis for further research, rather than to test specific theories or hypotheses (Muloin, 2000).

In addition to the empirical implications, the study also provides insights into undertaking attitude studies of primary stakeholder groups using a mixed method approach. The quantitative survey of the community and qualitative semi-structured interviews of site managers and government officers is an example of mixed methods. The rich qualitative responses supported by statistical analysis offer interesting insights about stakeholder

responses to and attitudes towards property damage. Furthermore, the spontaneous interviews generated emic information building confidence in the meaningfulness of the responses to the interviewees (Huang, Song, Huang, & Lou, 2012; Muloin, 2000; Young, Thyne, & Lawson, 1999).

6.3.2 Vandalism as a complex issue: The importance of stakeholder involvement

The findings in this thesis reinforce the multi-stakeholder involvement view concerning attraction management (Balkaran & Maharaj, 2013; Clarke & Waligo, 2013; Garrod et al., 2012). The three studies reveal that vandalism / property damage at visitor attraction is a serious and complex problem. The complexity of the phenomenon demands an all-encompassing strategy with targeted intervention at different levels. Stakeholder responses in addressing property damage at visitor attractions has been acknowledged widely in the existing literature (Clarke & Waligo, 2013; Goldstein, 2004; Manfredo, 1992). Figure 6.1 proposes a concentric rings targeting approach to addressing property damage. The individual visitor represents the innermost ring followed by attraction site management. The local community of respective attraction forms the third ring and the regulatory body/government responsible for the destination is the overarching outermost ring. The concentric rings demonstrate the relative influence of the members/elements on each other. For example, the policies of destination management in the outermost ring influence the decision and practices of the three inner rings. On the other hand, attraction management in the second ring is affected by the actions of the community and the destination managers. At the same time, the attraction management influences the behaviour of visitors at the attraction site. The model is based on the empirical findings of the research project that the government policies affect other stakeholder strategies and the community responses affect site management practices (Harris et al., 2012; Kaewta & Siyathorn, 2013; Siriwardana & Meng, 2013).

To put the ideas in a more direct way, the destination policy makers, can improve communication with local residents and the site managers, empower these stakeholder groups and involve them in decision making process related to policy making and implementation. The study observed the dependency on the government's role in destination and attraction management. This dependence is also reported in other developing countries where tourism is emerging as an important economic sector (Wu & Pearce, 2012).

The concentric ring approach argues that an effective property damage control strategy should incorporate targeted mechanisms directed at different levels such as the individual visitor, visitor attraction management, the local community of the attraction, and the governing body responsible for destination management (Fyall, 2011; Jamal & Stronza, 2009). The model facilitated development of an evaluation framework to review the effectiveness of current approaches based on influence relationship between stakeholders, assessment of priorities and gaps in the policies, and address the gaps based on consultation with other stakeholders represented by the concentric rings.
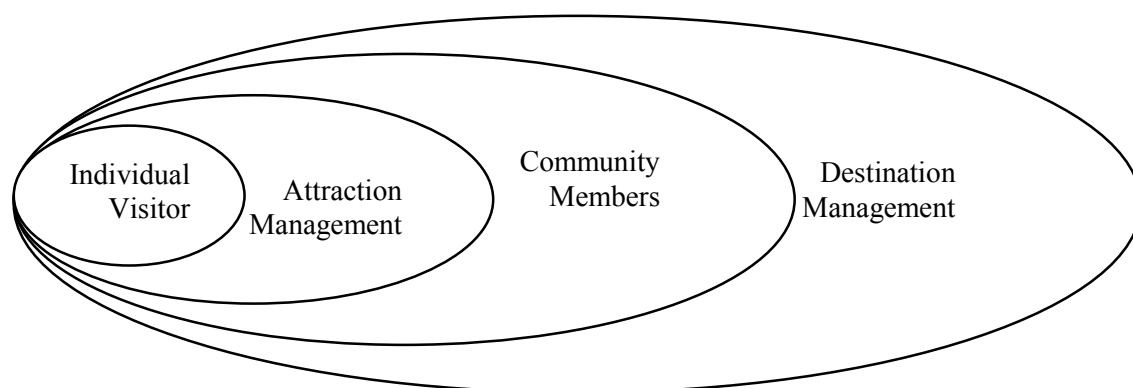
Figure 6.2. Concentric rings approach to counter-vandalism strategy formulation

Hence it is reasonable to suggest that identification and development of tourism resources and policy to manage these resources is not enough to ensure sustainable development. It is equally important at assess the attitudes local community and other stakeholders maintain towards visitor attractions. In addition, attention can be given to

develop wider partnership with other stakeholder groups in the decision making process. The

concentric rings approach offers useful research direction into long term implementation as

well as performance indicators for sustainability (Jamal & Stronza, 2009).

6.3.3 The ownership and responsibility of tourism property: Community participation

A third implication of this thesis lies in the contribution to the understanding of the

community involvement in attraction management. Carr (2012) suggested a fourfold view of

community involvement. At the highest level is the citizen partner, who is actively involved

in the operations and maintenance of the community property. A partner is also a problem

solver for the community. The citizen associate is the next level of community involvement.

An associate is a consultant to the primary stakeholders and acts as 'eyes and ears' for them.

The citizen bystander is at the third level of engagement. They do not play in active role

beyond being an observer and showing support for community initiatives. The final possible

role for a community member is being the citizen opponent. Unlike the other three levels of

positive involvement, a citizen opponent is completely alienated from community affairs and

improvement initiatives. The different roles reflect different abilities of the community to

engage with the other stakeholders. Recognition of their capacity enables 'empowered

participation' at the desired level of association (Fung, 2010).

Empirical studies (Carr, 2012; Duarte, 2013; Fung, 2010) suggest that the gap

between individual aspirations/roles and collective action is not very high. A few motivated

members of the community can achieve a genuinely benefitting participation. For instance,

community participation in Singapore Zoo and Jim Thomson Museum attractions was

instrumental in controlling vandalism at these sites. By way of contrast, the absence of

stakeholder participation at Chinatown attractions in Singapore and Bangkok could be

responsible for higher levels of on-site property damage at these locations. Existing literature

suggested that the local community plays an important role, either directly or indirectly, actively or passively in shaping visitor behaviour (Lu & Liang, 2011). Building trust and partnerships within the community takes more time. However, under specific conditions, co-creation of community initiatives could create important outcomes and increase confidence.

6.3.4 PREP model: Integrated vandalism and property damage control framework

Stakeholders responsible for developing and implementing intervention strategies to address vandalism should acknowledge that the wide-ranging examples of vandalism / property damage are the result of different types of motivations (Oggins, 2007). The work of Newman (1972a) in his book *Defensible Space* popularized concepts such as territoriality, surveillance and target hardening to prevent property damage. Newman effort and other related studies (Gardiner, 1978; Jacobs, 1961) formed the foundation of crime prevention through environmental design (CPTED). The survey of the literature suggests that the principles of CPTED are employed successfully in various settings such as community space, housing estates, parks, and recreation sites (Coleman, 1985; Cozens, 2002; Cozens & Davies, 2013; Cozens et al., 2005; Ekblom, 2011b; Poyner, 1983).

These findings strengthen the idea that the motivating factors behind each form of property damage should be identified and addressed with the help of a multi-dimensional approach to correct deviant behaviours. The literature suggests that increased levels of surveillance, enforcement, or more advanced technical measures have not significantly reduced property damage in general. Introduction of stringent and stricter laws of punitive penalties have failed in delivering desired outcomes with regards to reducing levels of property damage / vandalism at visitor attractions. In comparison, softer social approaches are criticised for implementation time lags and lack of measurement of outcomes (Offler et al., 2009).

The property damage and destruction by visitors should be checked and eliminated using multiple approaches, which included strategies to influence visitor behaviour, robust design of the physical setting of the attraction, target hardening, education, and by adopting an inclusive approach to involve the primary stakeholders such as the community, site management, and the local authorities. These findings reinforce the idea that the use of proactive intervention strategies in combination with reactive approaches result in a sustainable development model that maximises the benefits to the society by presenting economic opportunities in form of sustained tourist flows. Such a model protects the interest of future generations by preserving the appeal of attractions, irrespective of their theme or category.

The prevention, restoration, education, and participation (PREP) framework proposed in Figure 6.3 is an innovative approach to develop a strategy for coordinating and integrating diversified strategies in preparation to address property damage at visitor attractions. The PREP framework was proposed following extensive rethinking of the multi-faceted problem in vandalism (Barker & Bridgeman, 1994). The PREP approach seeks to integrate the strengths within various intervention strategies as a means for sustainable development practices. The premise is that the integration and coordination of the strategies can control vandalism at attractions (Jamal & Stronza, 2009). It suggests that environment design principles defined in terms of territoriality, surveillance and target hardening should form the basis of the damage control framework as prevention (Cozens & Davies, 2013; Ekblom, 2011a). It is argued that timely and rapid repair and maintenance under restoration can play a significant role in addressing vandalism (Thompson et al., 2012).
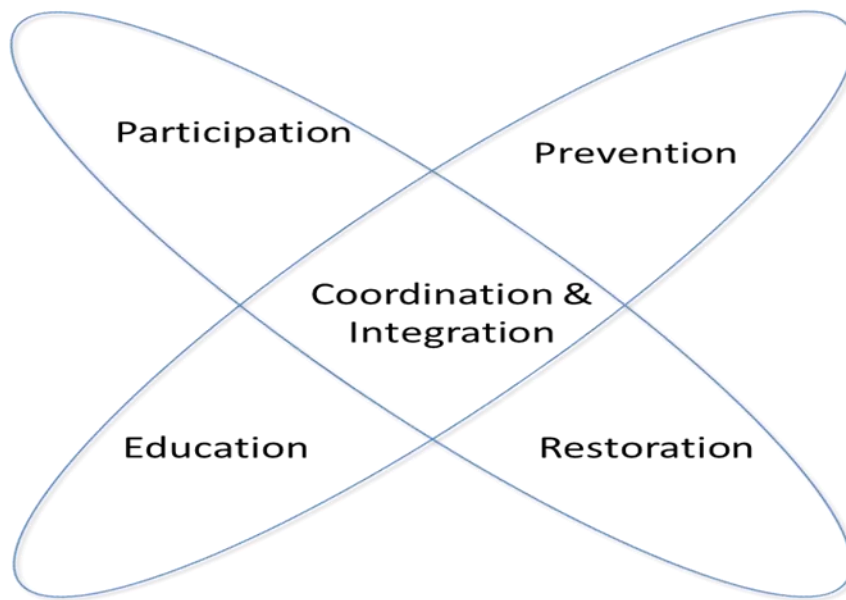
Figure 6.3. Integrated vandalism and property damage control framework – PREP Model

The PREP framework elements to the left (education and participation) suggests that the most important strategic elements relate to people. The focus is on visitors, local community and other stakeholders. Two principals are highlighted. They are education and participation (Moscardo & Ballantyne, 2008; Moscardo & Pearce, 1986; Srisuwan et al., 2011). These principles help inform the field based methods and practice. Based on Moscardo et al. (2007), Guy et al. (1990) and Garrod et al. (2012), Clarke and Waligo (2013) research, the education and participation elements are constructed in the PREP framework. The step by step framework is provided below:

Prevention: Comprises a set of interventions which seek to prevent acts of vandalism altogether. Prevention strategies include the use of design elements such as territoriality and environment layout. Management principles of surveillance, access control, and target hardening in deterring property damage make it difficult to damage settings. Increasing the fear of apprehension is also instrumental in preventing property damage.

Restoration: Refers to a set of plans and actions that seek to restore attraction elements by employing rapid repair and maintenance. CPTED principles of rapid repair and maintenance offer limited opportunity to vandals, thus, making it difficult to vandalise or increase the perception of being caught in the act.

Education: Involves strategies that seek to increase awareness of vandalism and its effect on sustainability of tourism sector. Visitors to attractions and the local community should be the primary focus of education and enhanced awareness programs. The objective of these education campaigns is to establish a proprietary interest in the issue of vandalism and local ownership of attraction properties, thus, discouraging deviant behaviours. Higher awareness could be achieved by adopting principles of mindfulness to enhance an authentic visitor experience and encourage desirable visitor behaviours.

Participation: Comprises a set of interventions that seek to encourage a sense of ownership and engagement within the stakeholders especially within the local community. Stakeholder participation in decision-making and operation are key factors to achieve higher levels of effectiveness of intervention strategies and help build sustainable attraction management outcomes.

Comparing the PREP framework model with the existing vandalism intervention strategies, it is argued by the researchers that PREP approach uncovers and expands knowledge about the participation of the local community and other stakeholders. In addition, the attention in the PREP to educating the visitor i.e. the perpetrator and seeking their participation in vandalism control suggest that the people (community and visitors) can drive the damage control process themselves. Finally, the synergistic effect of coordinated intervention is crucial to address a complex problem in vandalism.

6.4 MANAGERIAL IMPLICATIONS OF RESEARCH FINDINGS

The managerial implications in these research findings provide examples of best practices for community members, site managers, and government officers in the tourism sector. This research proposes various strategies that could be utilised by attraction stakeholders to address property damage at visitor attractions. In general terms, the comparative study allows for development of better practices in attraction management and visitor behaviour management. This research provides practitioners with a comprehensive understanding of reactive and proactive approaches, addresses the importance of community engagement, and highlights the success of previous strategies.

More specifically, this thesis begins to offer some practical application in the cultivation of various ways of addressing property damage. The results of studies in chapter 3, 4, and 5 indicated that the stakeholders reported that property damage / vandalism is a serious problem. The discussion in the various empirical study–based chapters of this thesis and the conclusions presented in this chapter reveal the importance of thoroughly planning a cycle of actions for the vandalism management process. The approach is illustrated in Figure 6.4.
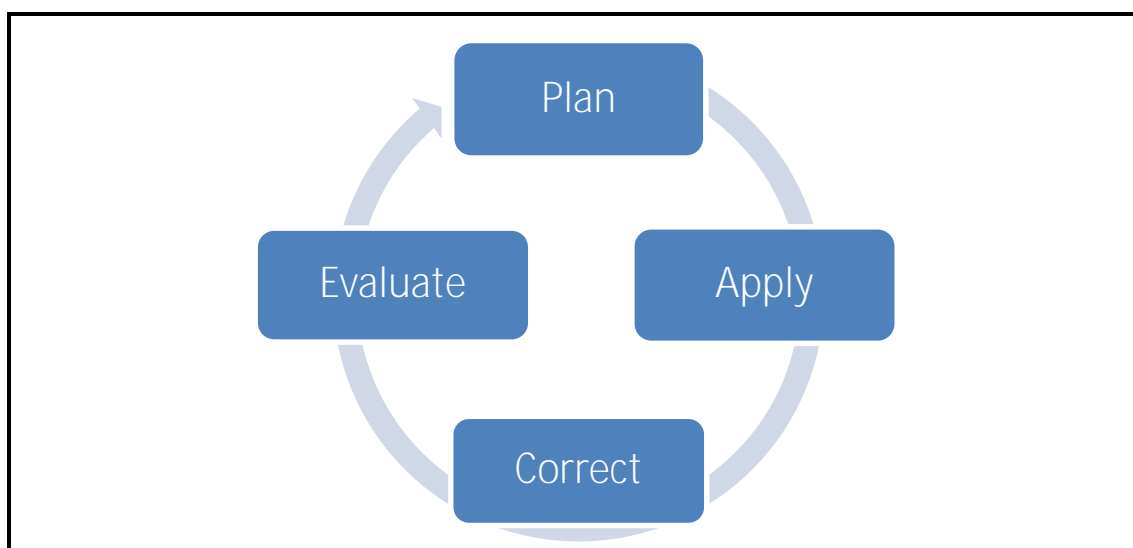
Figure 6.4. Cyclical model for visitor attraction vandalism management process

The cyclical model for visitor attraction vandalism management process proposes a four stage cycle: Plan, Apply, Correct and Evaluate (PACE). This model finds its roots in total quality management (TQM) philosophy. "TQM, based on traditional quality management, is an advanced concept and technique of quality management" (Xiaorong & Bojian, 2013, p. 1188). The value and advantages of the TQM approach and its application to tourism has been acknowledged in the literature (Fuzi & Peter, 2013; Witt & Muhlemann, 1994; Yu-Ting, 2011). However, there is limited evidence of organisations within the tourism industry adopting TQM (Witt & Muhlemann, 1994).

The researcher proposes to adopt some ideas from the TQM philosophy especially the Deming cycle popularly known as the Plan –Do –Check –Act or the PDCA cycle (Xiaorong & Bojian, 2013). The 'planning stage' involves research, problem analysis and decision making. The 'doing stage' involves implementing the plans devised in the preceding stage. The main activities of the 'checking stage' are to compare and confirm actual performance with the targets. The final 'acting stage' refers to re-planning and generating improvements for of the next PDCA cycle (Fuzi & Peter, 2013; Gupta, 2006; Xiaorong & Bojian, 2013).

The proposed Plan-Apply-Correct-Evaluate (hereafter referred to as PACE) model suggest development of a specific quality management approach to vandalism control. Hence, it emphasises the importance of TQM and the PDCA cycle in management system and philosophy (Hwang, Wen, & Chen, 2010). Three principles are highlighted. They are total involvement, an integrated approach and continuous improvement (Mohamed, 2013). Firstly, all stakeholder participation in the attraction management process is the base of any TQM initiative. Secondly, effectiveness of the quality management lies in integration and coordination of all efforts (as described in the PREP framework). Finally, it is a long-term paradigm shift in management thinking without expecting dramatic changes overnight. Conversely, focus should be on frequent continuous improvements in the entire system. The

improvements should be aligned with the long-term goal of sustainable development. Comparing the PACE model with the PDCA approach, the researcher argues that they are consistent with each other in their development and outcomes. In detail, PACE model seeks to focus on continuous improvement is vandalism control initiatives in attraction management.

All processes of quality management in visitor attraction vandalism control could adhere to the PACE cycle. The main contents of each stage are as follows:

Stage P: Undertaking a scoping study of the current level of property damage at the attraction, evaluating nature and extent of property damage, inspecting current stakeholder responses to vandalism and sourcing the advantages and disadvantages of current intervention.

Stage A: Designing and implementing an intervention strategy for vandalism control based on the PREP framework as introduced in section 6.3.4 earlier in this chapter.

Stage C: Assessing the implementation and effectiveness of the vandalism intervention with the objective of finding out the problems existing in each process element. Fine-tuning the process to make it relevant to the intended objectives.

Stage E: Evaluating the outcomes of the intervention and their impact on community engagement, stakeholder involvement in decision making and development of sustainable tourism practices and collecting feedback for the next PACE cycle.

Another specific operational considerations arising from this thesis is the comparison of 'person oriented' and 'person environment oriented' stakeholder responses across different stakeholder groups and attractions located in the two different tourism destinations. From this information, it is possible to suggest customised strategies that target specific person, group, or environment.

6.5 LIMITATIONS AND CHALLENGES ASSOCIATED WITH THE THESIS

In addition to the usual limitations associated with conducting research—difficulty in covering a complex topic, social desirability effects, and exhaustive coverage of the population studies (Babbie, 2010)—there were a number of other limitations and challenges associated with this research project. The most significant challenge in this study was to conduct a comparative study involving Thailand and Singapore. The approval process from the National Research Council of Thailand (NRCT) drawn-out and complex. The researcher had to make two trips to Bangkok to get approval and complete relevant documentation to conduct research in Bangkok. The approval process involved making written application for research to the Bangkok Municipal Corporation and Tourism Authority of Bangkok.

Operational and logistical problems arose from the geographical distances between Singapore and Thailand and the distance between attractions within each location. This issue resulted in the data collection phase being staged over a long period of time, determined by when travel and fieldwork (physical audit, community survey, and interviews) were possible. These geographical impediments presented financial demands and logistical demands for the researcher.

Unavoidable social-political issues with powerful implications arose during the project implementation. Data collection in Bangkok for the comparative study was considerably difficult in 2010 and 2011. Political developments such as the riots between the Yellow shirt and Red shirt stretched between April 2010 and February 2011. The riots were followed by the dissolving of the Thailand parliament in May 2011, and the general election in July 2011 made it difficult for the researcher to travel to Bangkok to collect data. Government officials and businesses in Bangkok were reluctant to share information and had tightened security measures within the attraction properties. The researcher had to make repeated visits and requests for interviews to conduct community surveys in and around

attraction properties. The political turmoil was followed by the flooding of Bangkok city from August 2011 to January 2012. The cumulative effects of above factors resulted in a number of rejections for the interviews. Efforts were taken to employ a randomly selected sample, however, political constraints demanded adaptation of the study plan and a few interviews were based on convenient sampling in Bangkok. This may have also played a role in participation rates and the quality of response obtained.

The physical audit study in chapter three presented a first-hand account of the evidence of property damage, and 'as it happens' account of deviant visitor behaviours at attraction sites. The researchers surveyed the physical boundaries of each site only once. This did not provide an opportunity to collect data over a specific period of time or permit a longitudinal approach. The data collected provided physical evidence captured in the form of photographs and narratives in the audit instrument. While strenuous efforts were made to sample key attractions, work with other sites may show some variability in the vandalism outcomes.

In chapter four, several other kinds of challenges were outlined. One of the key challenges was the use of the questionnaire in the study. Several prospective respondents objected to the perceived length of the questionnaire and abstained from participating in the study. This trend was observed in both Singapore and Bangkok. Another challenge in using the questionnaire was related to language. Since the primary language for this study is English, the main concepts are drawn from the English language. The original questionnaire was also constructed in the English language. Several words/phrases in the English language did not have corresponding words/phrases in the Thai language.

Some concepts were explained using a few more words in order to arrive at the same meaning. This exercise resulted in relatively longer sentences in the Thai questionnaire. Some of these limitations were partially addressed by providing pictures on the front page of the

questionnaire. The pictures helped in contextualising the responses. The Thai questionnaire

had questions in English and the Thai language. This provided multiple opportunities to the

respondent to understand the questions better. It is suggested that future studies should use

creative formatting to reduce the number of pages in the questionnaire. This will encourage

more respondents to participate in the research project.

The multiple regression analysis presented another limitation in this thesis. The cross

section of the data set could not check causality between current involvement action index

and the effectiveness of action. Further studies based on longitudinal data could be

undertaken to check which actions cause effectiveness of overall response.

In Chapter five, it was noted that this thesis employed a qualitative approach to

analyse interviews of stakeholder groups in Singapore and Bangkok. The one-to-one

structured interviews provided a cross-sectional research opportunity rather than a

longitudinal study (Lincoln et al., 2011). The interviewees were able to relate to their past

experiences and practices, with regards to property damage and comment on future

developments expectations. This is consistent with the aims of the study as collecting details

over a specific period of time and comparing these was not the specified aim of this study.

This style of work does still present the opportunity for future longitudinal studies to analyse

differences over time.

Some of these limitations, however, were partially addressed by using multiple

research methods such as the physical audit, the questionnaire-based survey, and the semi-

structured interviews. The pilot study conducted at the initial stages of each study was also

helpful in overcoming some of the limiting factors.

6.6 IMPLICATIONS FOR FUTURE RESEARCH

The set of studies in this thesis were built on realizing a number of research opportunities in tourism study. There is a lack of forward-looking research in tourism studies in general (Wu & Pearce, 2012). This research provides an opportunity for replication in several geographical and cultural settings. One of the recommended future directions of this area of research is that similar comparative studies could be conducted in other countries in the Asia Pacific region to confirm the findings of the study and to verify the widespread application within the regional context of the research. In contrast with urban tourism destinations context in this study, comparative studies in ecotourism or heritage tourism could enrich the findings in this work.

Given the intercultural setting in which the tourism industry operates, further research will benefit from similar comparative studies that focus on specific cultural elements shaping visitor behaviour or stakeholder responses to specific behaviours. An emic understanding of how the stakeholders, especially the local community, relate to tourism and visitor behaviour appears to be warranted (Maoz & Bekerman, 2010). Studies related to cross-cultural perspectives on vandalism and future attitudes and responses towards vandalism offer many such options.

The pragmatic difficulties mentioned as a limitation in conduction, this research project presents an opportunity for future research, since demonstrating value from previous work might assist future work. On a more academic note, more studies considering wider contextual issues that may be different from the western context would greatly enhance our standing of the vandalism phenomenon (Schofield, 2011). Future studies, especially those focusing around identifying similarities and differences in attraction management practices in the varied geographic locations and regions (eg. The Muslim world, Eastern Europe or South America) could further expand this research (Wearing, Wearing, & McDonald, 2009).

Other directions can be considered in future research. One direction is a deeper analysis of the key considerations and factors influencing the responses of stakeholders. Instead of simply identifying the factors in the questionnaire, a more searching set of items could be developed and measured (Panchal, 2013). Another direction is an in-depth qualitative study of visitor perceptions and responses to property damage. Interesting research studies could emerge from qualitative methodologies such as ethnography, focus group discussion, and participant observation. Similarly, further research conducted using quantitative research techniques and scales could provide new empirical findings for comparison.

6.6.1 Treatment of visitors as a stakeholder sub-group

As noted earlier in section 1.3.2.2 and section 2.5.2 in this thesis, responses of visitors as a stakeholder sub-group are excluded from the scope of this research project. The primary reason for the exclusion was the fact that the set of studies in this thesis attempt to evaluate responses to deviant visitor behaviour. To put the ideas in a more direct way, some visitors to an attraction are the perpetrators. Undesirable deviant visitor behaviours do result in property damage at attractions. Having said that, the visitors may also play an important role in eradicating vandalism by, first, getting involved is safe activities and, second, by correcting behaviours of fellow visitors. A reviewer of a previous output of this thesis commented that visitors as stakeholders, specifically those who are responsible for the vandalism should be studied more intensively. On reflecting on the thesis studies, the researcher suggests four areas for future study that can be developed from the current work. They are assessments of authenticity, visitor interpretation, criminal behaviour and youth sub-cultures analysis (Harris, 2005).

Considerable attention is given to the phenomenon of authenticity in tourism (Pearce, 2012). As noted in an earlier chapter, absence of an authentic experience may leave a visitor

indifferent to the attraction setting and encourage undesirable behaviours (Wang, 1999). By way of contrast, the example of a visitor in a temple defaced the statue and carry the defaced head with them as a souvenir, is explained by object authenticity (Reisinger & Steiner, 2006). Other acts of vandalism, such as, carving on trees, littering in natural settings such as national parks may provide an existential authentic experience to visitors (Steiner & Reisinger, 2006). Some of these inconsiderate, illogical visitor behaviours can be explained by subjective authenticity. Finally, vandalism results in a loss of tourism elements that provide object authentic, subjective authenticity and existential authenticity to future visitor streams (Pearce, 2012). Connecting these concerns with current study, the next step can incorporate visitor expectations from a visit to an attraction. An analysis could reveal deeper links to authenticity and visitor behaviour. A questionnaire based survey may be developed based so the researchers can better understand visitor expectations. Perhaps a section is the questionnaire with a few scenarios could reveal patters of visitor behaviour offering variants of the authenticity of their visitor experience.

Authenticity is closely linked with visitor interpretation. Interpretation involves the various ways in which attraction management communicates with the visitors (Moscardo & Ballantyne, 2008; Moscardo et al., 2007). These communications often seek the authenticity of a visitor experience or even guide visitor behaviour. The effectiveness of these communications may be compromised by limited environment learning by visitors (Guy et al., 1990). To put it simply, people encounter different social worlds, quite different from their own and their norms. There is a real difficulty in understanding the 'other' perspective. When encountering other cultures and lacking a systematic method to understand them, most people are forced to relate it to their own experiences (Harris, 2005). Thus, most accounts of 'first contact' with other people show a considerable lack of understanding, sometimes leading to aggression which may manifest itself in vandalism.

This study itself offered some ideas about the role of communication and education in affecting dynamic change in the community's and visitor's knowledge of consequences of vandalism. However, the work did not explore the visitor response to these communications. This was due to deliberate exclusion of visitor responses to vandalism. A study to assess the visitor attitudes and behavioural responses (visitor interpretation) to these preventative and advisory interpretive communications could provide an accurate assessment of an interpretive communication strategy.

Another issue related to deviant visitor behaviour is worth considering. On a more serious note, some acts of vandalism are classified as criminal behaviour. There are several examples of public prosecution of vandals in Singapore under the vandalism act. For example, in the Michael Fay incident an American youth was charged with caning and imprisonment for a specific act of vandalism of damaging private property. Similarly, the Cenotaph vandalism case for graffiti on public property and the littering offence which was punishable by imprisonment (Amirthalingam, 2013; Chong, 2013). It may be productive to study official records to study deviant behaviours and illegal acts because these records document the critical decisions to arrest, to convict, or to release (Dannefer & Schutt, 1982). Similarly, assessing court transcripts of those who are prosecuted and more detailed observation based on CCTV cameras assessing time and place of the activities would provide deep insights to the background and contextual factors, actual nature of the crime and projected damage to the society.

Finally, the focus on the young generation, contributes to the current tourism research literature which has been preoccupied with young tourist not young perpetrators or local community members (hosts). There has long been a tendency for youth to associate together in public spaces and adopt distinctive styles (Tajfel, 1982; Thurnell-Read, 2012). Cohen (1972) had suggested that these groups are a reaction to social pressure. Some studies have

reported youth vandalism in form of public and private property damage in and around

attraction (Harry, 2000; Hazard, 2009; Oggins, 2007; Tygart, 1989).

In order to study the youth behaviour, a possible research inquiry could be developed

as follows. Two major issues can be explored from the above perspectives. The first research

question could explore the group's views on vandalism/property damage at visitor attractions.

The second research question could uncover their preferred involvement types in initiatives to

address vandalism. In terms of research methodology, key informant interviews could be

conducted at first or adopting a participant observation approach by penetrating the groups

with an undercover style operation. These methods could gain the group's emic voices on the

researched issues. The suggested approach links to the precedents in the sociology literature

for becoming a group member or exploring deviance (Hollingshead & Poole, 2011; Rubin &

Babbie, 2013). A comparative study could then be developed to augment the findings of the

current study (Bernard, 2013).

Combining the previous ideas together, a similar study can be done in a single

attraction or a cluster of attractions simultaneously. Similarly, a study could focus on a

specific vandalism type, for example, the most common behaviour is littering. Studies of this

type could help understand the interaction between visitors and attraction management, the

impact of mass tourism on tourism assets and the effectiveness of stakeholder responses. An

even broader study can be a comparison between other locations in Asia or in the West, and

through this comparison researchers can assess how visitors may affect sustainable tourism

practices.

6.7 FINAL REMARKS

Tourism, both as an industry and as a field of study, is inherently dynamic and

complex in nature. These characteristics of tourism make it challenging to understand the

tourism phenomenon. This research project evaluates stakeholder responses and attitudes

towards vandalism at visitor attractions in terms of how they are affected by and how they respond to the forces within the tourism sector.

This research provides unique, comprehensive, and empirically generated findings that evaluate stakeholder responses to property damage in a cross-cultural Asia-Pacific context. This research revealed how to develop a code of best practices to address property damage at visitor attractions within tropical Asia. This research also looked at the relationship between key stakeholder groups responsible for strategies and initiatives to protect tourism property while benefiting from the growth of tourism industry.

This research is the first in-depth empirical project of its kind using a comparative study methodology as a lens to analyse the responses of key stakeholders to property damage in the tropical Asian context. The study contributes to the body of knowledge related to property damage at attractions, as well as assessing stakeholder responses to develop sustainable tourism practices.

REFERENCES

Agrusa, J., Tanner, J., Henkel, P., Agrusa, W., & Henkel, R. (2006). Thailand as a tourist destination: Perceptions of international visitors and Thai residents. *Asia Pacific Journal of Tourism Research, 11*(3), 269-287.

Ahbel-Rappe, K. (2008). Freud's. *Journal of the American Psychoanalytic Association, 56*(3), 833-861. doi: 10.1177/0003065108323271

Albrecht, G. N., & Otto, H.-U. (1991). *Social prevention and the social sciences: theoretical controversies, research problems, and evaluation strategies* (Vol. 11). New York: De Gruyter.

Albrecht, J. F., & Das, D. K. (2011). *Effective Crime Reduction Strategies: International Perspectives*. Hoboken: Taylor and Francis.

Aldenderfer, M. S., & Blashfield, R. K. (1984). *Cluster Analysis*. Beverly Hills: Sage Publications.

Alin, A. (2010). Multicollinearity. *Wiley Interdisciplinary Reviews: Computational Statistics, 2*(3), 370-374. doi: 10.1002/wics.84

Allik, I. U., & McCrae, R. R. (2002). *The Five-factor model of Personality Across Cultures*. New York: Kluwer Academic/Plenum Publishers.

Almond, L., Duggan, L., Shine, J., & Canter, D. (2005). Test of the arson action system model in an incarcerated population. *Psychology, Crime and Law, 11*(1), 1-15. doi: 10.1080/10683160310009634287

Alonso, A. D., & Liu, Y. (2012). Old wine region, new concept and sustainable development: winery entrepreneurs' perceived benefits from wine tourism on Spain's Canary Islands. *Journal of Sustainable Tourism, 20*(7), 991-1009.

Amirthalingam, K. (2013). Criminal Justice and Diversionary Programmes in Singapore. *Criminal Law Forum, 24*(4), 527-559. doi: 10.1007/s10609-013-9216-6

Andereck, K. L., Valentine, K. M., Knopf, R. C., & Vogt, C. A. (2005). Residents' perceptions of community tourism impacts. *Annals of Tourism Research, 32*(4), 1056-1076. doi: 10.1016/j.annals.2005.03.001

Anonymous. (2001). Storms, chainsaw threaten natable trees. *American Forests, 107,* 1.

Anwar, S., & Valadkhani, A. (2013). Tourism and the services sector growth in Singapore. *Tourism Analysis, 18*(1), 103-109.

Asian News Monitor. (2013). Thailand: Thailand ranks high in UNWTO World Tourism Barometer, *Asia News Monitor* Retrieved from http://jcu.summon.serialssolutions.com/2.0.0/link/0/eLvHCXMwY2BQSDI1SgK1E5I tU1LMTAxTjQxTgM10gzQT0yRzS8skQ5TdcUiluZsQA1NqniiDnJtriLOHLqxojE_J yYk3NjS1MAbt-jQ0FGNgAfaMUwHTHxhk

Babbie, E. R. (2010). *The Practice of Social Research*. Australia: Wadsworth Cangage Learning.

Babbie, E. R. (2013). *Adventures in Social Research: Data Analysis using IBM SPSS Statistics*. California: SAGE.

Baggio, R., & Klobas, J. (2011). *Quantitative Methods in Tourism: A Handbook*. Clevedon: Channel View Publications.

Bala, M., Chalil, G., & Gupta, A. (2012). Emic and Etic: Different Lenses for Research in Culture: Unique Features of Culture in Indian Context. *Management and Labour Studies, 37*(1), 45-60. doi: 10.1177/0258042X1103700105

Balkaran, R., & Maharaj, S. (2013). The application of the theory of Visitor Attractions and its impact on the competitive advantage of the Tourism Sector in Durban, South Africa. *Journal of Economics and Behavioral Studies, 5*(8), 546-552.

Ballatore, A. (2014). Defacing the map: Cartographic vandalism in the digital commons. *The Cartographic Journal*. retrieved from http://arxiv.org/pdf/1404.3341v1.pdf

Barker, M., & Bridgeman, C. (Eds.). (1994). *Preventing vandalism: what works?*. London: Home Office Police Research Group.

Baron, S. W. (2006). Street youth, strain theory, and crime. *Journal of Criminal Justice, 34*(2), 209-223. doi: 10.1016/j.jcrimjus.2006.01.001

Baron, S. W. (2007). Street youth, gender, financial strain, and crime: Exploring Broidy and Agnew's extension to general strain theory. *Deviant Behavior, 28*(3), 273-302. doi: 10.1080/01639620701233217

Beaver, K. M., & Walsh, A. (2011). *The Ashgate Research Companion to Biosocial Theories of Crime*. Farnham: Ashgate.

Benckendorff, P. (2004). *Forces shaping the future of Australian tourist attractions: Trends and challenges leading up to 2020*. Townsville, Qld: School of Business, James Cook University.

Benckendorff, P. (2008). Envisioning sustainable tourism futures: An evaluation of the futures wheel method. *Tourism and Hospitality Research, 8*(1), 25-36.

Benckendorff, P. (2009, 15-18 June 2009). *What do sustainable tourism researchers value? An analysis of citations from the Journal of Sustainable Tourism (1999-2008).* Paper presented at the BEST EN Think Tank IX & First International Symposium on Volunteering & Tourism, Singapore.

Benckendorff, P., Moscardo, G., and Murphy, L. (2005) *Contrasting high-tech and high touch experiences in tourist attractions*. In: Proceedings of the 11th Annual Conference of the Asia Pacific Tourism Association (1), pp. 638-649. From: New Tourism for Asia-Pacific, 7 - 10 July 2005, Goyang, Korea.

Berg, D. (2004). *Advanced clinical skills and physical diagnosis*. Malden, Mass: Oxford.

Bernard, H. R. (2013). *Social research methods: qualitative and quantitative approaches*. Thousand Oaks, CA: SAGE.

Bernasco, W. (2013). *Offenders on Offending: Learning about Crime from Criminals*. Hoboken: Taylor and Francis.

Bishnu, S., & Pam, D. (2009). Residents' involvement in tourism and their perceptions of tourism impacts. *Benchmarking, 16*(3), 351-371.

Boorstin, D. (1961). *The image.* Vintage: New York

Boniface, B. G., & Cooper, C. P. (2005). *Worldwide destinations: the geography of travel and tourism*. Oxford: Elsevier Butterworth-Heinemann.

Botti, L., Peypoch, N., & Solonandrasana, B. (2008). Time and tourism attraction. *Tourism Management, 29*(3), 594-596. doi: 10.1016/j.tourman.2007.02.011

Bramwell, B., & Lane, B. (2009). Economic cycles, times of change and sustainable tourism. *Journal of Sustainable Tourism, 17*(1), 1-4. doi: 10.1080/09669580802608061

Bramwell, B., & Lane, B. (2011). Critical research on the governance of tourism and sustainability. *Journal of Sustainable Tourism, 19*(4-5), 411-421. doi: 10.1080/09669582.2011.580586

Bramwell, B., & Sharman, A. (2000). Approaches to sustainable tourism planning and community participation: the case of the Hope Valley. In G. Richards, & D. Hall (Eds.), *Tourism and sustainable community development* (pp. 17-35). London: Routledge

Briassoulis, H. (2002). Sustainable tourism and the question of the commons. *Annals of Tourism Research, 29*(4), 1065-1085. doi: 10.1016/s0160-7383(02)00021-x

Brownfield, D., & Thompson, K. (2008). Correlates of Delinquent Identity: Testing Interactionist, Labeling, and Control Theory. *International Journal of Criminal Justice Sciences, 3*(1), 44-54.

Bryman, A. (2004). *The Disneyization of Society*. Thousand Oaks, California: Sage Publications.

Bryman, A. (2012). *Social Research Methods*. Oxford: Oxford University Press.

Buckley, R. (2010). *Conservation Tourism*. Cambridge, Mass: CABI.

Buckley, R. (2012). Sustainable tourism: research and reality. *Annals of Tourism Research, 39*(2), 528-546. doi: 10.1016/j.annals.2012.02.003

Bullock, J. (2011). Handbook of Employee Engagement: Perspectives, Issues, Research and Practice (Vol. 32, pp. 310-311). Bingley: Emerld Group Publishing LImited.

Burke, K. L., Joyner, A. B., Czech, D. R., & Wilson, M. J. (2000). An investigation of concurrent validity between two optimism/pessimism questionnaires: The life orientation test-revised and the optimism/pessimism scale. *Current Psychology, 19*(2), 129-136. doi: 10.1007/s12144-000-1009-5

Bushman, B. J., & Anderson, C. A. (2002). Human Aggression. *Annual Review of Psychology, 53*(1), 27-51.

Buss, D. (1997). Human aggression in evolutionary psychological perspective. *Clinical Psychology Review, 17*(6), 605-619.

Butler, R. (2011). *Tourism area life cycle*. Oxford: Goodfellow Publishers Limited.

Butler, R., & Wall, G. (1985). Introduction: Themes in research on the evolution of tourism. *Annals of Tourism Research, 12*(3), 287-296. doi: 10.1016/0160-7383(85)90001-5

Bryd, E. T., Bosley, H. E., & Dronberger, M. G. (2009). Comparisons of stakeholder perceptions of tourism impacts in rural eastern North Carolina. *Tourism Management, 30*(5), 693-703. doi: 10.1016/j.tourman.2008.10.021

Calver, S. J., & Page, S. J. (2013). Enlightened hedonism: exploring the relationship of service value, visitor knowledge and interest, to visitor enjoyment at heritage attractions. *Tourism Management, 39*, 23-36.

Canter, D. (1983). The purposive evaluation of places: A facet approach. *Environment and Behavior, 15*(6), 659-698. doi: 10.1177/0013916583156001

Carletta, J. (1996). Assessing agreement on classification tasks: the Kappa statistic. Retrieved from http://arxiv.org/abs/cmp-lg/9602004

Carr, P. J. (2012). Citizens, community, and crime control: The problems and prospects for negotiated order. *Criminology & Criminal Justice, 12*(4), 397-412. doi: 10.1177/1748895812447235

Chong, E. (2013). Cenotaph vandalism suspect charged, *The Straits Times*. Retrieved from http://jcu.summon.serialssolutions.com/2.0.0/link/0/eLvHCXMwY2BQALYCzNMM 0lJNDBMTLc0Mk80STSySTICKzVMtEhPBK3wRu-OQSnM3IQam1DxRBjk31xBnD11Y0RifkpMTb2QJbBgbAdvfhoZiDLyJoNXfeSXg XWIpEgwK5pZp5qZmlqnGiUZpwBoWWK0lA7N6omlaUpJlaop5KgCBESXg

Christensen, H. H., & Clark, R. N. (1983). Increasing public involvement to reduce depreciative behavior in recreation settings. *Leisure Sciences, 5*(4), 359-379. doi: 10.1080/01490408309513014

Christensen, H. H., Johnson, D. R., & Brookes, M. H. (1992). *Vandalism: research, prevention, and social policy*. Portland: Pacific Northwest Research Station.

Cialdini, R. (2009). We have to break up. *Perspectives on Psychological Science, 4*(1), 5-6.

Cialdini, R. B., & Goldstein, N. J. (2002). The science and practice of persuasion. *Cornell Hotel and Restaurant Administration Quarterly, 43*(2), 40-50.

Cialdini, R. B., Griskevicius, V., Kenrick, D. T., Goldstein, N. J., & Mortensen, C. R. (2006). Going Along Versus Going Alone: When Fundamental Motives Facilitate Strategic (Non) Conformity. *Journal of Personality and Social Psychology, 91*(2), 281-294.

Clancey, G., Lee, M., & Fisher, D. (2012). Crime prevention through environmental design (CPTED) and the New South Wales crime risk assessment guidelines: A critical

review. *Crime Prevention and Community Safety, 14*(1), 1-15. doi: 10.1057/cpcs.2011.10

Clarin, B. M., Bitzilekis, E., Siemers, B. M., Goerlitz, H. R., & Hodgson, D. (2014). Personal messages reduce vandalism and theft of unattended scientific equipment. *Methods in Ecology and Evolution, 5*(2), 125-131. doi: 10.1111/2041-210X.12132

Clarke, J., & Waligo, V. M. (2013). Implementing sustainable tourism: a multi-stakeholder involvement management framework. *Tourism Management, 36*, 342-353. doi: 10.1016/j.tourman.2012.10.008

Coakes, S. J. (2013). *SPSS: analysis without anguish : version 20.0 for Windows*. Milton, Qld: John Wiley and Sons Australia.

Cohen, A. K. (1971). *Delinquent Boys: The Culture of the Gang*. USA: Free Press.

Cohen, L. E., & Machalek, R. (1988). A General theory of expropriative crime: an evolutionary ecological approach. *American Journal of Sociology, 94*(3), 465-501.

Cohen, S. (Ed.). (1973). *Property destruction: motives and meanings*. London: Architectural Press.

Coleman, A. (1985). *Utopia on Trial*. London: Hilary Shipman, Ltd.

Collier, J. (1967). *Visual Anthropology: Photography as a Research Method*. New York Holt, Rinehart and Winston.

Cottrell, S. P., Vaske, J. J., Shen, F., & Ritter, P. (2007). Resident perceptions of sustainable tourism in Chongdugou, China. *Society & Natural Resources, 20*(6), 511-525. doi: 10.1080/08941920701337986

Cozens, P. (2002). Planning for crime prevention: a transatlantic perspective. *Cities, 19*(6), 437-438. doi: 10.1016/s0264-2751(02)00073-2

Cozens, P. (2008). Crime prevention through environmental design. In R. Wortley & L. Mazerolle (Eds.), *Environmental criminology and crime analysis* (pp. 153–194). Devon, UK: Willan.

Cozens, P., & Davies, T. (2013). Crime and residential security shutters in an Australian suburb: Exploring perceptions of 'Eyes on the Street', social interaction and personal safety. *Crime Prevention and Community Safety, 15*(3), 175-191. doi: 10.1057/cpcs.2013.5

Cozens, P., Saville, G., & Hillier, D. (2005). Crime prevention through environmental design (CPTED): a review and modern bibliography. *Property Management, 23*(5), 328-356. doi: 10.1108/02637470510631483

Cozens, P. M. (2008). New Urbanism, Crime and the Suburbs: A Review of the Evidence. *Urban Policy and Researsch, 26*(4), 429-444. doi: 10.1080/08111140802084759

CPTED Committee. (2000). *General guidelines for designing safer communities*. City of Virginia Beach.

Cretchley, J., Rooney, R., & Gallois, C. (2010). Mapping a 40-Year history with Leximancer: Themes and concepts in the journal of Cross-Cultural Psychology. *Journal of Cross-Cultural Psychology, 41*(3), 318-328. doi: 10.1177/0022022110366105

Cross, N. (2011). *Design thinking: understanding how designers think and work*. Oxford: Berg.

Crotts, J. (2008). Book review: Why choose this book? How we make decision? *Tourism Analysis, 13*(3), 345-346.

Crotts, J. C. (2003). Theoretical perspectives on tourist criminal victimisation. *The Journal of Tourism Studies, 14*(1). 92-98.

Crotts, J. C. (2004). The Effect of Cultural Distance on Overseas Travel Behaviors. *Journal of Travel Research, 43*(1), 83-88. doi: 10.1177/0047287504265516

Crotts, J. C. (2011). Serendipitous Gleanings. In P. L. Pearce (Ed.), *The Study of Tourism: foundations from psychology* (Vol. 15, pp.171-188). Bingley, UK: Emerald Group Publishing

Crotts, J. C., & Jewell, B. (2009). Adding psychological value to heritage tourism experiences revisited. *Journal of Travel and Tourism Marketing, 26*(3), 244-263. doi: 10.1080/10548400902925122

Crotts, J. C., & Pan, B. (2007). Destination Appraisals. *Annals of Tourism Research, 34*(2), 541-544. doi: 10.1016/j.annals.2006.12.002

Dann, G. M. S. (2011). Anglophone Hegemony in Tourism Studies Today. *EnlighteningTourism: A Pathmaking Journal, 1*(1-30).

Dann, G., Nash, D., & Pearce, P. (1988). Methodology in tourism research. *Annals of Tourism Research, 15*(1), 1-28. doi: 10.1016/0160-7383(88)90068-0

Dannefer, D., & Schutt, R. K. (1982). Race and Juvenile Justice Processing in Court and Police Agencies. *American Journal of Sociology, 87*(5), 1113-1132. doi: 10.1086/227557

David, H., Greg, S., & Paul Michael, C. (2005). Crime prevention through environmental design (CPTED): a review and modern bibliography. *Property Management, 23*(5), 328-356.

de Vries-de Bruijn, H. (1978). Sociobiology and behaviour. *Behavioural Processes, 3*(2), 197-198. doi: 10.1016/0376-6357(78)90044-X

Deflem, M. (2012). *Disasters, Hazards, and Law*. Bingley, UK: Emerald Insight.

Del Greco, L., Walop, W., & Eastridge, L. (1987). Questionnaire development: 3. Translation. *CMAJ : Canadian Medical Association journal = journal de l'Association medicale canadienne, 136*(8), 817-818.

Dempsey, N., & Burton, M. (2012). Defining place-keeping: The long-term management of public spaces. *Urban Forestry & Urban Greening, 11*(1), 11-20. doi: 10.1016/j.ufug.2011.09.005

Denzin, N. K. E., & Lincoln, Y. E. (2011). *The Landscape of Qualitative Research* (4th ed.). USA: SAGE Publications.

Devlin, A. S., & Brown, G. (2003). Vandalism: Environmental and Social Factors. *Journal of College Student Development, 44*(4), 502-516. doi: 10.1353/csd.2003.0037

Dodds, R., & Butler, R. W. (2009). Inaction more than action: barriers to the implementation of sustainable tourism policies. In S. Gossling, C. M. Hall, & D. B. Weaver (Eds.), *Sustainable tourism futures: Perspectives on systems, restructuring and innovations* (pp. 43-57). Abingdon: Routledge.

Dotter, D. L. (2004). *Creating deviance: an interactionist approach*. Walnut Creek, Calif: Altamira Press.

Douglas, J. E., Burgess, A. W., & Burgess, A. G. (2013). *Crime classification manual: a standard system for investigating and classifying violent crimes*. Hoboken: Wiley.

Doygun, H., & Kuşat Gurun, D. (2008). Analysing and mapping spatial and temporal dynamics of urban traffic noise pollution: a case study in Kahramanmaraş, Turkey. *Environmental Monitoring and Assessment, 142*(1), 65-72. doi: 10.1007/s10661-007-9908-7

Duarte, O. C. (2013). Can design support community safety and crime prevention programmes in areas of socio-economic disadvantage? *Crime Prevention and Community Safety, 15*(3), 223-239. doi: 10.1057/cpcs.2013.3

Duarte, O. C., Lulham, R., & Kaldor, L. (2011). Co-designing out crime. *Codesign-International Journal of Cocoreation in Design and the Arts, 7*(3-4), 155-168. doi: 10.1080/15710882.2011.630476

Dwyer, L., Gill, A., & Seetaram, N. (2012). *Handbook of research methods in tourism: quantitative and qualitative approaches*. Cheltenham: Edward Elgar.

Edwards, M., & Steins, N. A. (1998). Developing an Analytical Framework for Multiple-Use Commons. *Journal of Theoretical Politics, 10*(3), 347-383. doi: 10.1177/0951692898010003008

Ekblom, P. (2010). *Crime Prevention, Security and Community Safety using the 5Is Framework*. Basingstoke: Palgrave Macmillan Ltd.

Ekblom, P. (2011a). Deconstructing CPTEDa/ and Reconstructing it for Practice, Knowledge Management and Research. *European Journal on Criminal Policy and Research, 17*(1), 7-28.

Ekblom, P. (2011b). Special Issue: New Thinking on Crime Prevention Through Environmental Design (CPTED) Introduction. *European Journal on Criminal Policy and Research, 17*(1), 1-5.

Ekblom, P., & Tilley, N. (2000). Going equipped - Criminology, situational crime prevention and the resourceful offender. *British Journal of Criminology, 40*(3), 376-398.

Enrico, C., Giuseppe, S., Mauro, M., & Concetto, P. (1998). A scientific approach to cultural heritage preservation: A case study of vandalistic acts on important Roman mosaics. *Journal of Chemical Education, 75*(10), 1302-1306.

Erasmus, A. C., Bishoff, E., & Rousseau, G. G. (2010). The potential of using Script theory in consumer behaviour research. *Journal of Family Ecology and Consumer Sciences /Tydskrif vir Gesinsekologie en Verbruikerswetenskappe, 30*(1). 1-9. doi: 10.4314/jfecs.v30i1.52819

Everitt, B. S., Landau, S., & Leese, M. (2009). *Cluster Analysis* (4 ed.). USA: Wiley.

Everitt, B. S., Landau, S., Leese, M., & Stahl, D. (2011). *Cluster Analysis*. Hoboken: John Wiley & Sons, Ltd.

Farrar, D. E., & Glauber, R. R. (1967). Multicollinearity in Regression Analysis: The Problem Revisited. *The Review of Economics and Statistics, 49*(1), 92-107.

Farrington, D. P., & Coid, J. (2003). *Early prevention of adult antisocial behaviour*. New York: Cambridge University Press.

Faulkner, H. W., Moscardo, G., & Laws, E. (2001). *Tourism in the twenty-first century: reflections on experience*. London: Continuum.

Fayos-Sola, E., Silva, J. o. A. M. d., & Jafari, J. (2012). *Knowledge management in tourism: policy and governance applications* (Vol. 4). Bingley, United Kingdom: Emerald.

Featherstone, R., & Deflem, M. (2003). Anomie and Strain: Context and Consequences of Merton's Two Theories. *Sociological Inquiry, 73*(4), 471-489. doi: 10.1111/1475-682X.00067

Felson, M., & Cohen, L. E. (1980). Human Ecology and Crime: A Routine Activity Approach. *Human Ecology, 8*(4), 389-406. doi: 10.1007/BF01561001

Fennell, D. A. (2007). *Ecotourism*. Hoboken: Taylor & Francis.

Fischer, F., Kollar, I., Stegmann, K., & Wecker, C. (2013). Toward a Script Theory of Guidance in Computer-Supported Collaborative Learning. *Education Psychologist, 48*(1), 56-66. doi: 10.1080/00461520.2012.748005

Fisher, J. D., & Baron, R. M. (1982). An equity-based model of vandalism. *Population and Environment, 5*(3), 182-200.

Fowler, F. J. (2009). *Survey Research Methods* (Vol. 1). Thousand Oaks: Sage Publications.

Freeman, R. E. (1984). *Strategic management: A stakeholder approach*. Boston: Pitman.

Fritzon, K., Canter, D., & Wilton, Z. (2001). The application of an action system model to destructive behaviour: the examples of arson and terrorism. *Behavioral sciences & the law, 19*(5-6), 657-690. doi: 10.1002/bsl.464

Fung, A. (2010). *Empowered participation: reinventing urban democracy*. US: Princeton University Press.

Fuzi, M. A., & Peter, G. (2013). TQM implementation in developing countries. *Benchmarking: An International Journal, 20*(5), 693-711. doi: 10.1108/BIJ-01-2012-0003

Fyall, A. Garrod, B., Leask, A., Willhill, S. (2008). *Managing Visitor Attractions: New Directions*. Amsterdam: Elsevier.

Fyall, A. (2008). Marketing visitor attractions: A collaborative approach. In Fyall, A., Garrod, B., Leask, A., Willhill, S. (Eds.), *Managing Visitor Attraction* (pp.340-357) Oxford, UK: Butterworth-Heinemann.

Fyall, A. (2011). Destination management: challenges and opportunities. In Wang, Y., & Pizam, A. (Eds.). *Destination Marketing and Management: Theories and Applications* (pp. 340-357), Cambridge, USA: CABI.

Fyall, A., & Leask, A. (2006). Destination marketing: Future issues - Strategic challenges. *Tourism and Hospitality Research, 7*(1), 50-63. doi: 10.1057/palgrave.thr.6050029

Fyall, A., Leask, A., & Garrod, B. (2001). Scottish visitor attractions: a collaborative future? *The International Journal of Tourism Research, 3*(3), 211-228. doi: 10.1002/jtr.313

Fyall, A., Leask, A., & Garrod, B. (2002). Introduction: visitor attractions. *International Journal of Tourism Research, 4*(5), 333-335. doi: 10.1002/jtr.384

Gable, E., & Handler, R. (2005). Horatio Alger and the Tourist's Quest for Authenticity, or, Optimism, Pessimism, and Middle-Class American Personhood. *Anthropology and Humanism, 30*(2), 124-132. doi: 10.1525/anhu.2005.30.2.124

Gallagher, J. J. (2012). A Distinction between Emic Research and Etic Research. *Gifted and Talented International, 27*(1), 71-72.

Gardiner, R. (1978). *Design for Safe Neighborhoods*. Washington DC: United States Department of Housing and Urban Development.

Garrod, B., Fyall, A., Leask, A., & Reid, E. (2012). Engaging residents as stakeholders of the visitor attraction. *Tourism Management, 33*(5), 1159-1173. doi: 10.1016/j.tourman.2011.11.014

Geason, S., & Wilson, P. R. (1990). *Preventing Graffiti and Vandalism*. Canberra: Australian Institute of Criminology.

Geller, P. S. (2010). *Built Environment: Design, Management and Applications*. New York: Nova Science Publishers, Inc.

George, D., & Mallery, P. (2013). *IBM SPSS for Windows Step by Step: A Simple Guide and Reference*. Boston, USA: Allyn & Bacon.

Getz, D. (1994). Residents' attitudes towards tourism. *Tourism Management, 15*(4), 247-258. doi: 10.1016/0261-5177(94)90041-8

Ghazal, M., Vázquez, C., & Amer, A. (2012). Real-time vandalism detection by monitoring object activities. *Multimedia Tools and Applications, 58*(3), 585-611. doi: 10.1007/s11042-011-0751-z

Giles, M., & Giles, K. (2007). The writing on the wall: The concealed communities of the East Yorkshire horselads. *International Journal of Historical Archaeology, 11*(4), 336-357.

Glasson, J., & Cozens, P. (2011). Making communities safer from crime: An undervalued element in impact assessment. *Environmental Impact Assessment Review, 31*(1), 25-35. doi: 10.1016/j.eiar.2010.03.007

Gnoth, J. (1997). Tourism motivation and expectation formation. *Annals of Tourism Research, 24*(2), 283-304. doi: 10.1016/s0160-7383(97)80002-3

Goddard, H. H., & Louis Clark Vanuxem, F. (1984). *Human efficiency and levels of human intelligence*. New York: Garland Pub.

Goeldner, C. R., & Ritchie, J. R. B. (2008). *Tourism: Principles, Practices, Philosophies*. Hoboken: John Wiley & Sons, Inc.

Goldstein, A. P. (1996). *The psychology of vandalism*. New York: Plenum Press.

Goldstein, A. P. (2004). *New perspectives on aggression replacement training: practice, research and application*. Hoboken, N.J: John Wiley & Sons.

Goodson, L., & Phillimore, J. (2010). A Community Research Methodology: Working with New Migrants to Develop a Policy Related Evidence Base. *Social Policy and Society, 9*(4), 489-501. doi: 10.1017/S1474746410000217

Gordon, D. (1997). Are our national treasurres in danger? *Current Science, 83*(5). 4-7.

Gossling, S., Hall, C. M., & Weaver, D. B. (2009). *Sustainable tourism futures: perspectives on systems, restructuring and innovations*. London: Routledge.

Gottfredson, M. R., & Hirschi, T. (1990). *A General Theory of Crime*. Stanford, USA: Stanford University Press

Greenberger, D. B., & Allen, V. L. (1978). An aesthetic theory of vandalism. *Crime & Delinquency, 24*(3), 309-321.

Guell, R. (2008). *Issues in Economics today* (4th ed.). Sydney: McGraw-Hill

Gunn, C. A. (1985). Getting ready for megatrends in travel attractions. *Tourism Management, 6*(2), 138-141. doi: 10.1016/0261-5177(85)90022-6

Gunn, C. A. (1997). *Vacationscape: Developing Tourist Areas* (3rd ed.). USA: Taylor & Francis.

Gupta, P. (2006). Beyond PDCA - A new process management model (Vol. 39, pp. 45-52): H.W. Wilson - Applied Science & Technology Abstracts.

Guy, B. S., Curtis, W. W., & Crotts, J. C. (1990). Environmental learning of first-time travelers. *Annals of Tourism Research, 17*(3), 419-431. doi: 10.1016/0160-7383(90)90007-E

Hall, J. (2005). *Beyond GDP: measures of econonic, social and environmental progress*. Canberra: Australian Bureau of Statistics.

Hall, S., & Winlow, S. (2012). *New Directions in Criminological Theory*. Hoboken: Taylor and Francis.

Hamilton, K., & Alexander, M. (2013). Organic Community Tourism: A Cocreated Approach. *Annals of Tourism Research, 42*, 169-190. doi: 10.1016/j.annals.2013.01.015

Harkness, J. A. (2010). *Survey methods in multinational, multiregional, and multicultural contexts*. Hoboken, N.J: Wiley.

Harmon-Jones, E., & Winkielman, P. (2007). *Social neuroscience: integrating biological and psychological explanations of social behavior*. New York: Guilford Press.

Harris, D. (2005). *Key Concepts in Leisure Studies*. London: SAGE.

Harris, R., Williams, P., & Griffin, T. (2012). *Sustainable Tourism*. Hoboken: Taylor & Francis.

Harry, L. W. (2000). Korean Temple burnings and vandalism: The response of the Society for Buddhist-Christian Studies. *Buddhist - Christian Studies, 20*(1), 239-240.

Hazard, A. (2009). Vandalism hurts: when vandals strike, our communities pay the price. *Current Health 2, a Weekly Reader publication, 36*(3), 19.

Healy, R. G. (1994). The "common pool" problem in tourism landscapes. *Annals of Tourism Research, 21*(3), 596-611. doi: 10.1016/0160-7383(94)90122-8

Henderson, J. C. (2010). New visitor attractions in Singapore and sustainable destination development. *Worldwide Hospitality and Tourism Themes*, 2(3), 251-261.

Henderson, J. C. (2012). Developing and regulating casinos: The case of Singapore. *Tourism and Hospitality Research, 12*(3), 139-146. doi: 10.1177/1467358412467642

Herstine, J., Hill, J., & Buerger, R. (2006). Managing Human Activity and Tourism Impacts: A Case Study of Zeke's Island Reserve, North Carolina. *Tourism in Marine Environments, 3*(2), 163-172. doi: 10.3727/154427306779435201

Hetherington, A., Inskeep, E., & McIntyre, G. (1993). *Sustainable tourism development: guide for local planners*. Madrid: World Tourism Organisation.

Hillman, D. (2013). Freud's Shylock. *American Imago, 70*(1), 1-50. doi: 10.1353/aim.2013.0000

Hofstede, G. H. (2001). *Culture's consequences: comparing values, behaviors, institutions, and organizations across nations*. Thousand Oaks, California: Sage Publications.

Hollin, C. R. (1992). *Criminal Behaviour: Explanation and Prevention*. Florence, USA: Taylor & Francis.

Hollingshead, A., & Poole, M. S. (2011). *Research Methods for Studying Groups: A Guide to Approaches, Tools, and Technologies*. Hoboken: Taylor & Francis.

Hollis-Peel, M. E., Reynald, D. M., & Welsh, B. C. (2012). Guardianship and crime: an international comparative study of guardianship in action. *Crime, Law and Social Change, 58*(1), 1-14. doi: 10.1007/s10611-012-9366-1

Holmefjord, K. (2000). *Synergies in Linking Product, Industries and Place? Is Co-operation Between Tourism and Food Industries a Local Coping Strategy in Lofoten and Hardanger?* Paper presented at the Whether, how and why regional policies are working in concert with coping strategies locally, Joensuu, Finland.

Holmes, S., & Barta, P. (2010). Singapore casino experiment pays off, *Wall Street Journal,* p. B.8. Retrieved from http://online.wsj.com/news/articles/ SB10001424052748704680504575533793000481362

Huang, Y., Song, H., Huang, G., & Lou, J. (2012). A comparative study of tourism supply chains with quantity competition. *Journal of Travel Research, 51*(6), 717-729. doi: 10.1177/0047287512451138

Huesmann, L. R. (2007). The impact of electronic media violence: Scientific theory and research. *Journal of Adolescent Health, 41*(6), S6-S13.

Inskeep, E. (1991). *Tourism planning: an integrated and sustainable development approach*. New York: Van Nostrand Reinhold.

Inskeep, E. (1998). *Guide for local authorities on developing sustainable tourism*. Madrid: World Tourism Organization.

Jacobs, J. (1972). *The death and life of great American cities*. Harmondsworth: Penguin.

Jafari, A., Fuat Fırat, F., Ahmet Su¨erdem, A., Søren Askegaard, S., & Dalli, D. (2012). Non-western contexts: The invisible half. *Marketing Theory, 12*(1), 3-12. doi: 10.1177/1470593111424183

Jafari, J. (1974). The components and nature of tourism. *Annals of Tourism Research, 1*(3), 73-89. doi: 10.1016/0160-7383(74)90034-6

Jafari, J. (1982). Tourism and the Host Community. *Journal of Travel Research, 20*(3), 26-27. doi: 10.1177/004728758202000307

Jafari, J. (1987). Tourism models: the sociocultural aspects. *Tourism Management, 8*(2), 151-159. doi: 10.1016/0261-5177(87)90023-9

Jafari, J. (2005). The Scientification of Tourism. *Politica y Sociedad, 42*(1), 39-56.

Jamal, T., & Stronza, A. (2009). Collaboration theory and tourism practice in protected areas: stakeholders, structuring and sustainability. *Journal of Sustainable Tourism, 17*(2), 169-189. doi: 10.1080/09669580802495741

James Cook University. (2014). Statement of Strategic Intent. Retrieved from http://www.jcu.edu.au/about/strategic-intent/index.htm

Jawahar, I. M., & McLaughlin, G. L. (2001). Toward a Descriptive Stakeholder Theory: An Organizational Life Cycle Approach. *The Academy of Management Review, 26*(3), 397-414.

Jenkins, I., & Schrö̈er, R. (2013). *Sustainability in Tourism: A Multidisciplinary Approach*. Weisbaden: Westdeutscher Verlag GmbH.

Jennings, G. (2010). *Tourism Research*. Milton, Qld: John Wiley & Sons.

Jewell, B., & Crotts, J. (2002). Adding Psychological Value to Heritage Tourism Experiences. *Journal of Travel & Tourism Marketing, 11*(4), 13-28. doi: 10.1300/J073v11n04_02

Jiang, S., Land, K. C., & Wang, J. (2013). Social Ties, Collective Efficacy and Perceived Neighborhood Property Crime in Guangzhou, China. *Asian Journal of Criminology, 8*(3), 207-223. doi: 10.1007/s11417-013-9167-1

Jordan, F., & Aitchison, C. (2008). Tourism and the sexualisation of the gaze: solo female tourists' experiences of gendered power, surveillance and embodiment. *Leisure Studies, 27*(3), 329-349. doi: 10.1080/02614360802125080

Kaewta, M., & Siyathorn, K. (2013). Enhancing Tourism Competitiveness of Hong Kong via Tourism Planning: A Comparative Case Study between Hong Kong and Singapore. *Asian Social Science, 9*(17), 30-37.

Katy, O. (2007). Tackling the impact of drugs and alcohol through environmental design. *Housing, Care and Support, 10*(2), 33-40.

Kennedy, D. M. (2012). *Deterrence and Crime Prevention: Reconsidering the Prospect of Sanction*. Hoboken: Taylor and Francis.

Kirkpartick, D. (1996, August 22, 1996). American Graffiti: These tourists visit and vandalize, *The Wall Street Journal*. Retrieved from http://search.proquest.com.elibrary.jcu.edu.au/docview/398518335?pq-origsite=summon

Komain, K., Aree, N., Thongphon Promsaka Na, S., Chidchanok, C., & Patarapong, K. (2013). A SWOT Analysis of Tourism Development in Khon Kaen, Thailand. *Asian Social Science, 9*(17), 226-231.

Kotler, P. (2013). *Marketing*. Frenchs Forest, NSW: Pearson Australia.

Krippendorff, K. (2013). *Content analysis: an introduction to its methodology*. Thousand Oaks, California: SAGE Publications.

Kuipers, P., Appleton, J., & Pridmore, S. (2013). Lexical analysis of coronial suicide reports: A useful foundation for theory building. *Advances in Mental Health, 11*(2), 197-203.

LaGrange, R. L., & Ferraro, K. F. (1992). Perceived Risk and Fear of Crime: Role of Social and Physical Incivilities. *Journal of Research in Crime and Delinquency, 29*(3), 311-334. doi: 10.1177/0022427892029003004

Lau, R. W. K. (2010). Revisiting Authenticity. *Annals of Tourism Research, 37*(2), 478-498. doi: 10.1016/j.annals.2009.11.002

Laws, E., Richins, H., Agrusa, J., & Scott, N. (2011). *Tourist Destination Governance: Practice, Theory and Issues*. Herndon: CABI Publishing.

Leanne, M. (2011). The way forward in designing out crime. Greater Manchester police design for security consultancy. *Safer Communities, 10*(3), 31-40. doi: 10.1108/17578041111171069

Leask, A., & Fyall, A. (2006). *Managing World Heritage Sites*. Amsterdam: Elsevier.

Leask, A., & Fyall, A. (2008). Introduction: Managing World Heritage. *Journal of Heritage Tourism, 2*(3), 131-132. doi: 10.2167/jht054.0

Leiper, N. (1990). Tourist attraction systems. *Annals of Tourism Research, 17*(3), 367-384.

Lesego Senyana, S., & Tibabo Moren, S. (2011). Community-based tourism enterprises: challenges and prospects for community participation; Khama Rhino Sanctuary Trust, Botswana. *Journal of Sustainabe Tourism, 19*(1), 97-114.

Leslie, D. (2012). *Responsible Tourism : Concepts, Theory and Practice*. Wallingford: CABI Publishing.

Lew, A. A. (1987). A framework of tourist attraction research. *Annals of Tourism Research, 14*(4), 553-575. doi: 10.1016/0160-7383(87)90071-5

Lewin, K. (1997). *Resolving social conflicts: Field theory in social science*. Washington, DC: American Psychological Association.

Lewin, S. B. (1996). Economics and psychology: Lessons for our own day from the early twentieth century. *Journal of Economic Literature, 34*(3), 1293-1323.

Leximancer. (2013). Leximancer Manual. from https://www.leximancer.com/site-media/lm/science/Leximancer_Manual_Version_4_0.pdf

Li, M. (2014). Cross-Cultural Tourist Research: A Meta-Analysis. *Journal of Hospitality & Tourism Research, 38*(1), 40-77. doi: 10.1177/1096348012442542

Li, W. (2006). Community decisionmaking participation in development. *Annals of Tourism Research, 33*(1), 132-143. doi: 10.1016/j.annals.2005.07.003

Liburd, J. J. (2012). Tourism research 2.0. *Annals of Tourism Research, 39*(2), 883-907. doi: 10.1016/j.annals.2011.10.006

Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic Inquiry*. Beverly Hills, California: Sage.

Lincoln, Y. S., Lynham, S. A., & Guba, E. G. (2011). Paradigmatic controversies, contradictions, and emerging confluences, revisited. In N. K. Denzin & Y. S. Lincoln (Eds.), *The Sage handbook of qualitative research* (4th ed.). Thousand Oaks: SAGE.

Lindsay, A., Kees, D., Lucy, K., & Rodger, W. (2013). Introduction to Design+Crime. *Crime Prevention and Community Safety, 15*(3), 169-174. doi: 10.1057/cpcs.2013.7

Lonner, W. J., & Berry, J. W. (1986). *Field methods in cross-cultural research*. Beverly Hills: Sage Publications.

Lorenz, K. (1970). *Studies in Animal and Human Behaviour*. Cambridge, USA: Harvard University Press.

Lorenz, K. (1977). *Behind the mirror: a search for a natural history of human knowledge*. London: Methuen.

Lu, E. (1992). Saving Ankgor Wat, Cambodia's City of Temples, *Wall Street Journal,* p. A.1. Retrievd from http://search.proquest.com.elibrary.jcu.edu.au/docview/398351716?pq-origsite=summon

Lu, H., & Liang, B. (2011). Introduction: Public Participation and Involvement in the Criminal Justice System in Asia. *Asian Journal of Criminology, 6*(2), 125-130. doi: 10.1007/s11417-011-9112-0

Lucianetti, L. (2011). Crime prevention and community safety policies from a dynamic and comparative perspective: The cases of Rome and London. *Crime Prevention and Community Safety, 13*(4), 260-272. doi: 10.1057/cpcs.2011.13

Lung-Tan, L. (2012). Etic or Emic? Measuring Culture in International Business Research. *International Business Research, 5*(5), 109-115.

MacCannell, D. (1973). Staged Authenticity: Arrangements of Social Space in Tourist Settings. *The American Journal of Sociology, 79*(3), 589-603. doi: 10.1086/225585

Magz, O. (2006). After Sands, big plans. *Variety, 404*(8), B8. Retrieved from http://search.proquest.com.elibrary.jcu.edu.au/docview/236229119?pq-origsite=summon

Mair, J. S., & Mair, M. (2003). Violence prevention and control through environmental modifications. *Annual Review of Public Health, 24*(1), 209-225.

Malek, N. A., & Mariapan, M. (2009). Visitors perception on vandalsim and safety issues in a Malaysian urban park. *Theoretical and Empirical Researches in Urban Management*(13), 93-107.

Manfredo, M. J. (1992). *Influencing human behavior: theory and applications in recreation, tourism, and natural resources management*. Champaign, Ill: Sagamore.

Mansfield, E. R., & Helms, B. P. (1982). Detecting Multicollinearity. *The American Statistician, 36*(3), 158-160.

Manu, B. (2010). Review of southeast Asian economic developments. *Southeast Asian Affairs* (1), 23-43.

Maoz, D., & Bekerman, Z. (2010). Searching for Jewish answers in Indian resorts: the postmodern traveler. *Annals of Tourism Research, 37*(2), 423-439.

Mark, M., Gabrielle, H., Claudia, C., Giuseppe la, T., & Gabriel, G. (2009). Comparing public-health research priorities in Europe. *Health Research Policy and Systems, 7*(1), 17-17. doi: 10.1186/1478-4505-7-17

Marsh, I. (2006). *Theories of crime*. Abingdon, Oxon: Routledge.

Massoomeh Hedayati, M., Aldrin, A., Nordin Abd, R., & Mohammad Javad Maghsoodi, T. (2011). A Review of the Effectiveness of Crime Prevention by Design Approaches towards Sustainable Development. *Journal of Sustainable Development, 4*(1), 160-172.

Matkar, A. (2012). Cronbach's Alpha Reliability Coefficient for Standard of Customer Services in Maharashtra State Cooperative Bank. *IUP Journal of Bank Management, 11*(3), 89-95.

Mayer, G. R. (2002). Behavioral strategies to reduce school violence. *Child & Family Behaviour Therapy, 24*(1-2), 83-100.

Mayer, M. (2014). Can nature-based tourism benefits compensate for the costs of national parks? A study of the Bavarian Forest National Park, Germany. *Journal of Sustainable Tourism 22*(4), 561-583. doi: 10.1080/09669582.2013.871020

Mayers, D. G. (2005). *Social Psychology* (8 ed.). Beijing: Posts & Telecom Press.

McCaghy, C. H. (2008). *Deviant Behavior: crime, conflict, and interest groups*. Boston: Pearson/Allyn and Bacon.

McCool, S. F., & Moisey, R. N. (2008). *Tourism, recreation, and sustainability: linking culture and the environment*. Wallingford, UK: CABI Publishing.

McCormick, S. (2003). *Instructing students who have literacy problems* (4th ed.) Portland: Prentice Hall.

McDowall, S., & Wang, Y. (2009). An nnalysis of international tourism development in Thailand: 1994-2007. *Asia Pacific Journal of Tourism Research, 14*(4), 351-370.

McGuire, J. (2004). *Understanding psychology and crime: perspectives on theory and action*. Buckingham: Open University Press.

McKechnie, L. E. (2008). Covert Observation. In L. M. Given (Ed.), *The SAGE Encyclopedia of Qualitative Research Methods* (pp. 133-134): Sage Publications.

McKercher, B. (1992). Tourism as a conflicting land use. *Annals of Tourism Research, 19*(3), 467-481. doi: 10.1016/0160-7383(92)90131-8

Mekhail, M., Elina, J., & Aino, H. (2013). Customer participation and value creation: a systematic review and research implications. *Managing Service Quality, 23*(4), 341-359. doi: 10.1108/MSQ-03-2013-0046

Menkhoff, T. (2011). *Beyond the knowledge trap: developing Asia's knowledge-based economies*. Hackensack, NJ: World Scientific.

Meyer, D., & Selvarajah, C. (2013). Cultural context and its influence on managerial leadership in Thailand. *Asia Pacific Business Review, 19*(3), 356-380.

Miethe, T. D., & Meier, R. F. (1994). *Crime and its social context: toward an integrated theory of offenders, victims and situations*. Albany: State University of New York Press

Millie, A. (2008). Anti-Social Behaviour, behavioural expectations and an urban aesthetic. *British Journal of Criminology, 48*(3), 379-394.

Min, W. (2013). Analysis of the Wine Experience Tourism Based on Experience Economy: A Case for Changyu Wine Tourism in China. *Research Journal of Applied Sciences, Engineering and Technology, 5*(20), 4925-4930.

Mohamed, Z. (2013). The TQM legacy – Gurus' contributions and theoretical impact. *The TQM Journal, 25*(6), 659-676. doi: 10.1108/TQM-06-2013-0069

Mohsen, T., & Reg, D. (2011). Making sense of Cronbach's Alpha. *International Journal of Medical Education, 2*, 53-55.

Moran, R., & Dolphin, C. (1986). The Defensible Space concept: theoretical and operational explication. *Environment and Behavior, 18*(3), 396-416.

Morgan, M., Lugosi, P., & Ritchie, J. R. B. (2010). *The Tourism and Leisure Experience: Consumer and Managerial Perspectives*. Clevedon: Channel View Publications.

Morgan, M., & Messenger, B. (2009). Using an Activity and Place-Based Typology to Explain Visitor Motivations. *Journal of Forestry, 107*(1), 44-49.

Moscardo, G. (1991). Museum scripts: An example of the application of social cognitive research to tourism. *Australian Psychologist, 26*(3), 158-165. doi: 10.1080/00050069108257242

Moscardo, G. (2007, 21-24 June 2007). *There's no such thing as sustainable tourism: innovation through challenging assumptions.* Paper presented at the BEST Education Network's Think Tank VII: innovations for sustainable tourismor Sustainable Tourism, Flagstaff, AZ, USA.

Moscardo, G. (2008). Sustainable tourism innovation: Challenging basic assumptions. *Tourism and Hospitality Research, 8*(1), 4-13.

Moscardo, G. (2009). Understanding tourist experience through Mindfulness Theory. In Kozak, M., and Decrop, A., (Eds.) *Handbook of Tourist Behaviour: Theory and Practice* (pp. 99-115). New York: Routledge.

Moscardo, G., & Ballantyne, R. (2008). Interpretation and Attractions. In Fyall, A., Garrod, B., Leask, A. & Wanhill, S., (Eds.), *Managing Visitor Attractions: new directions* (pp. 237-252). UK: Elsevier.

Moscardo, G., Ballantyne, R., & Hughes, K. (2007). *Designing interpretive signs: principles in practice*. Golden, Colorado: Fulcrum.

Moscardo, G., & Pearce, P. L. (1986). Visitor centres and environmental interpretation: An exploration of the relationships among visitor enjoyment, understanding and mindfulness. *Journal of Environmental Psychology, 6*(2), 89-108. doi: 10.1016/s0272-4944(86)80011-1

Moufakkir, O. (2011). The role of cultural distance in mediating the host gaze. *Toirist Studies, 11*(1), 73-89.

Muller, T. E., & Cleaver, M. (2000). Targeting the CANZUS baby boomer explorer and adventurer segments. *Journal of Vacation Marketing, 6*(2), 154-169. doi: 10.1177/135676670000600206

Muloin, S. T. (2000). *The psychological benefits experienced from tourist-wildlife encounters.* (Dissertation/Thesis), Townsville, Qld Retrieved from http://jcu.summon.serialssolutions.com/2.0.0/link/0/eLvHCXMwY2BQMDUyMDY2 SrQwTzMySTSzANY5xsbJpokpZklmiYnGKQYou-OQSnM3IQam1DxRBkk31xBnD92s5NJ46BhGPGh-

1NjQUIyBBdgpThVnYE0DRg6QBhaY4kDN4gwcEZbhoRaR3n4QrhCMq1cM3ryk V1giDiyfwXGra6xnAADtRyZi

Muris, P. (2006). Freud was right… about the origins of abnormal behavior. *Journal of Child and Family Studies, 15*(1), 1-12.

Murphy, P. E. (1985). *Tourism: a community approach*. New York: Methuen.

Myers, D. G. (2010). *Social Psychology* (10 ed.). New York: McGraw-Hill.

Nalla, M. K., Johnson, J. D., & Hayes-Smith, R. (2011). Prior victimization, region, and neighborhood effects on fear of crime in Mumbai, India. *Asian Journal of Criminology, 6*(2), 141-159. doi: 10.1007/s11417-011-9114-y

Nelson, J. G., Wall, G., & Butler, R. W. (1993). *Tourism and sustainable development: monitoring, planning, managing*. Waterloo, Ont: University of Waterloo, Dept. of Geography.

Nepal, S. K., & Lu, J. (2009). Sustainable tourism research: an analysis of papers published in the Journal of Sustainable Tourism. *Journal of Sustainable Tourism, 17*(1), 5-16.

Newman, O. (1972a). *Defensible space: crime prevention through urban design*. New York: Macmillan.

Newman, O. (1972b). *Defensible space: people and design in the violent city*. London: Architectural Press.

Newman, O. (1976). *Design guidelines for creating defensible space*. USA: National Institute of Law Enforcement and Criminal Justice

Newman, O. (1996). *Creating Defensible Space*. USA: Diane Publishing.

Newsome, D., & Moore, S. A. (2012). *Natural Area Tourism: Ecology, Impacts and Management*. Clevedon: Channel View Publications.

Newton, N. (2010). The use of semi-structured interviews in qualitative research: strengths and weaknesses. Retrieved from academia.edu https://www.academia.edu/1561689/The_use_of_semi-structured_interviews_in_qualitative_research_strengths_and_weaknesses

Nichols, G., & Crow, I. (2004). Measuring the Impact of Crime Reduction Interventions Involving Sports Activities for Young People. *The Howard Journal of Criminal Justice, 43*(3), 267-283. doi: 10.1111/j.1468-2311.2004.00327.x

Nuttavuthisit, K. (2007). Branding Thailand: correcting the negative image of sex tourism. *Place Branding and Public Diplomacy, 3*(1), 21-30.

O'Grady, W. (2011). *Crime in Canadian Context: Debates and Controversies* (2nd ed.). London: Oxford University Press.

Offler, N., Thompson, K., Hirsch, L., Thomas, M., & Dawson, D. (2009). *A review of the literature on social, non technical deterrents for vandalism in the rail industry*. Brisbane: CRC for Rail Innovation.

Oggins, J. (2007). Reversing Vandalism": Coping themes in a library's community art exhibit. *The Arts in Psychotherapy, 34*(3), 263-276.

Owen, D. (2007). The Dark Side: our far-flung correspondents. *The New Yorker, 83*(24), 28. Retrieved from http://search.proquest.com.elibrary.jcu.edu.au/docview/ 233128024?pq-origsite=summon

Oxford Advanced Learner's Dictionary of Current English. (2000). (6th ed.). London: Oxford University Press.

Pablant, P., & Baxter, J. (1975). Environmental correlates of school vandalism. *Journal of the American Planning Association, 41*(4), 270-279.

Panchal, J. H. (2013). *The Asian spa: a study of tourist motivations, "flow" and the benefits of spa experiences.* (Dissertation/Thesis), Townsville, Qld Retrieved from http://jcu.summon.serialssolutions.com/2.0.0/link/0/eLvHCXMwY2BQMDUyMDY2 SrQwTzMySTSzANY5xsbJpokpZklmiYnGKQYou-

OQSnM3IQam1DxRBik31xBnD92s5NJ46BgGsJ0K7D4ZmBiKMbAAe8Wp4gysac
DYAdLAElMcqFucgSPCMjzUItLbD8IVgnH1isG7l_QKS8SBBTQ4cnWN9QwAEN
smlA

Paskaleva-Shapira, K. A. (2007). New paradigms in city tourism management: redefining destination promotion. *Journal of Travel Research, 46*(1), 108-114.

Pearce, D. G. (2014). The Internationalization of Tourism Research. *Journal of Travel Research, 53*(3), 267-280. doi: 10.1177/0047287513491336

Pearce, D. G., & Butler, R. (1993). *Tourism research: critiques and challenges*. New York: Routledge.

Pearce, P. L. (1988). *The Ulysses factor: evaluating visitors in tourist settings*. New York: Springer-Verlag.

Pearce, P. L. (1991). Analysing tourist attractions. *Journal of Tourism Studies, 2*(1), 46-55.

Pearce, P. L. (1996). Recent research in tourist behaviour. *Asia Pacific Journal of Tourism Research, 1*(1), 7-17. doi: 10.1080/10941669708721959

Pearce, P. L. (2005a). *Tourist Behaviour: themes and conceptual schemes*: Channel View Publications.

Pearce, P. L. (2005b). Understanding environmental optimists and pessimists and Australia's Great Barrier Reef. In N. K. Saxena (Ed.), *Recent advances in marine science and technology, 2004* (pp. 263-271). Honolulu, Hawaii: PACON International.

Pearce, P. L. (2008). Understanding how tourism can bring sociocultural benefits to destination communities. In Moscardo, G., (ed.). *Building Community Capacity for Tourism Development* (pp. 29-40), Wallingford, Oxfordshire, UK: CABI.

Pearce, P. L. (2009). The relationship between positive psychology and tourist behavior studies. *Tourism Analysis, 14*(1). 37-48.

Pearce, P. L. (2009). Tourism research and the tropics: further horizons. *Tourism Recreation Research, 34*(2).107-121

Pearce, P. L. (2011). Tourists written reactions to poverty in Southern Africa. *Journal of Travel Research, 51*(2), 154-165. doi: 10.1177/0047287510396098

Pearce, P. L. (2012). Authenticity matters: meanings and further studies in tourism. In Singh, Tej Vir, (ed.). *Critical Debates in Tourism. Aspects of Tourism* (pp.265-276). Bristol, UK: Channel View Publications.

Pearce, P. L., & Benckendorff, P. (2006). Benchmarking, Usable Knowledge and Tourist Attractions. *Journal of Quality Assurance in Hospitality & Tourism, 7*(1), 29-52.

Pearce, P., Bhati, A., and Lee, C. H. (2012) *Cutting edge: new directions to tourism research*. In: Proceedings of the Annual International Conference on Tourism and Hospitality Research, pp. 61-65. From: THOR 2012 Annual International Conference on Tourism and Hospitality Research, 9-10 July 2012, Singapore.

Pérez, E. A., & Nadal, J. R. (2005). Host community perceptions a cluster analysis. *Annals of Tourism Research, 32*(4), 925-941. doi: 10.1016/j.annals.2004.11.004

Perlez, J. (2005, March 21, 2005). A cruel race to loot the spendor that was Angkor, commentary, *The New York Times*. Retrieved from http://www.nytimes.com/2005/03/21/international/asia/21cambodia.html?_r=0

Perlgut, D. (1983). Vandalism: The Environmental Crime. *Australian Journal of Social Issues, 18*(3), 209-216.

Peter, V., Theo Van Der, P., & Hans, N. (2013). The Best of Three Worlds: more effective policing by a problem-oriented approach of hot crimes, hot spots, hot shots, and hot groups. *Police Practice & Research, 14*(1), 66-81.

Peterson, R. A., & Rogers, M. M. (2013). Measuring business related ethicality globally: cultural emic or etic? *International Journal of Management and Marketing Research, 6*(1), 1-14.

Petrick, J. F. (2004). Are loyal visitors desired visitors? *Tourism Management, 25*(4), 463-470. doi: 10.1016/S0261-5177(03)00116-X

Peypoch, N., & Solonandrasana, B. (2007). On "E-Attraction" Tourism Destination--Extension and Application. In Matias, A., Nijkamp, P., & Neto, P., (Eds.). *Advances in Modern Tourism Research* (pp. 293-306), Heidelberg: Physica-Verlag.

Phillips, W. J., Wolfe, K., Hodur, N., & Leistritz, F. L. (2013). Tourist Word of Mouth and Revisit Intentions to Rural Tourism Destinations: a Case of North Dakota, USA. *International Journal of Tourism Research, 15*(1), 93-104. doi: 10.1002/jtr.879

Pike, S. (2008). Managing destination marketing organizations: the tasks, roles and responsibilities of the convention and visitors bureau executive. *Tourism Management, 29*(6), 1246-1246.

Pikora, T. J., Bull, F. C. L., Jamrozik, K., Knuiman, M., Giles-Corti, B., & Donovan, R. J. (2002). Developing a reliable audit instrument to measure the physical environment for physical activity. *American Journal of Preventive Medicine, 23*(3), 187-194. doi: 10.1016/S0749-3797(02)00498-1

Pizam, A. (1999). A comprehensive approach to classifying acts of crime and violence at tourism destinations. *Journal of Travel Research, 38*(1), 5-12. doi: 10.1177/004728759903800103

Pizam, A., & Mansfeld, Y. (1996). *Tourism, crime, and international security issues*. Chichester: Wiley.

Poitras, L., & Getz, D. (2006). Sustainable Wine Tourism: The Host Community Perspective. *Journal of Sustainable Tourism, 14*(5), 425-448. doi: 10.2167/jost587.0

Pontell, H. N. (2004). *Social deviance: readings in theory and research*. Upper Saddle River, NJ: Prentice Hall.

Poocharoen, O.-o., & Lee, C. (2013). Talent management in the public sector: a comparative study of Singapore, Malaysia, and Thailand. *Public Management Review, 15*(8), 1185-1207.

Portney, L. G., & Watkins, M. P. (2009). *Foundations of clinical research: applications to practice*. Upper Saddle River, N.J: Pearson/Prentice Hall.

Poyner, B. (1983). *Designing Against Crime: Beyond Defensible Space*. London: Butterworths.

Quackenbush, S. L. (2011). *Understanding General Deterrence: Theory and Application*. Basingstoke: Palgrave Macmillan.

Rakic, T., & Chambers, D. (2009). Researcher with a movie camera: visual ethnography in the field. *Current Issues in Tourism, 12*(3), 255-270. doi: 10.1080/13683500802401972

Rakic, T., & Chambers, D. (2012). *An introduction to visual research methods in tourism*. Abingdon, Oxon: Routledge.

Ray, J. L., & Smith, A. D. (2012). Using Photographs to Research Organizations: Evidence, Considerations, and Application in a Field Study. *Organizational Research Methods, 15*(2), 288-315. doi: 10.1177/1094428111431110

Reisinger, Y. (2013). *Transformational tourism: tourist perspectives*. Cambridge, MA: CABI.

Reisinger, Y., & Crotts, J. C. (2010). Applying Hofstede's national culture measures in tourism research: illuminating issues of divergence and convergence. *Journal of Travel Research, 49*(2), 153-164. doi: 10.1177/0047287509336473

Reisinger, Y., & Steiner, C. J. (2006). Reconceptualizing object authenticity. *Annals of Tourism Research, 33*(1), 65-86. doi: 10.1016/j.annals.2005.04.003

Reisinger, Y., & Turner, L. W. (2003). *Cross-cultural behaviour in tourism: concepts and analysis*. Oxford [U.K.]: Butterworth-Heinemann.

Reynald, D. M. (2011a). *Guarding Against Crime: Measuring Guardianship within Routine Activity Theory*. UK: Ashgate Publishing.

Reynald, D. M. (2011b). Translating CPTED into Crime Preventive Action: A Critical Examination of CPTED as a Tool for Active Guardianship. *European Journal on Criminal Policy and Research, 17*(1), 69-81. doi: 10.1007/s10610-010-9135-6

Reynald, D. M. (2013). *Guarding Against Crime: Measuring Guardianship Within Routine Activity Theory*. England: Ashgate Publishing.

Rezaie Doulatabadi, H., & Derakhshide, H. (2012). Comparative study effect of culture from Hofstede perspective on purchasing mobile phone in Iran and Thailand society. *International Journal of Business and Social Science, 3*(6), 146-154.

Richards, G. (2007). *Cultural tourism: global and local perspectives*. New York: Haworth Hospitality Press.

Robert, A. (2012). Reflection on "A Revised Strain Theory of Delinquency". *Social Forces, 91*(1), 33-38. doi: 10.1093/sf/sos117

Nunkoo, R., Smith, S., & Ramkisson, H., (2013). Residents' attitudes to tourism: a longitudinal study of 140 articles from 1984 to 2010. *Journal of Sustainable Tourism, 21*(1), 5-25.

Roncek, D. W., & Maier, P. A. (1991). Bars, blocks and crimes revisited: linking the theory of routine activities to the empiricism of "hot spots". *Criminology, 29*(4), 725-753. doi: 10.1111/j.1745-9125.1991.tb01086.x

Rotter, J. B. (1975). Some problems and misconceptions related to the construct of internal versus external control of reinforcement. *Journal of Consulting and Clinical Psychology, 43*(1), 56-67. doi: 10.1037/h0076301

Rubin, A., & Babbie, E. R. (2013). *Research Methods for Social Work*. USA: Thomson Brooks/Cole.

Sadger, J., & Dundes, A. (2005). *Recollecting Freud*. Madison, Wis: University of Wisconsin Press.

Samdahl, D. M., & Christensen, H. H. (1985). Environmental cues and vandalism: an exploratory study of picnic table carving. *Environment and Behavior, 17*(4), 445-458.

Santana-Jiménez, Y., & Hernández, J. M. (2011). Estimating the effect of overcrowding on tourist attraction: the case of Canary Islands. *Tourism Management, 32*(2), 415-425. doi: 10.1016/j.tourman.2010.03.013

Sarkis, J., Cordeiro, J. J., & Vazquez Brust, D. (2010). *Facilitating sustainable innovation through collaboration: a multi-stakeholder perspective*. New York: Springer Netherlands.

Schank, R. C., & Abelson, R. P. (2013). *Scripts, Plans, Goals, and Understanding: An Inquiry Into Human Knowledge Structures*. Hoboken: Taylor and Francis.

Scheier, M. F., & Carver, C. S. (1987). Dispositional optimism and physical well-being: the influence of generalized outcome expectancies on health. *Journal of Personality, 55*(2), 169-210. doi: 10.1111/j.1467-6494.1987.tb00434.x

Schofield, P. (2011). City resident attitudes to proposed tourism development and its impacts on the community. *International Journal of Tourism Research, 13*(3), 218-233. doi: 10.1002/jtr.814

Schwartz, D. (1989). Visual Ethnography: Using photography in qualitative research. *Qualitative Sociology, 12*(2), 119-154. doi: 10.1007/BF00988995

Shaw, G., & Williams, A. M. (2004). *Tourism and Tourism Spaces*. Thousand Oaks: Sage Publications.

Sheehan, L. R., & Ritchie, J. R. B. (2005). Destination Stakeholders Exploring Identity and Salience. *Annals of Tourism Research, 32*(3), 711-734. doi: 10.1016/j.annals.2004.10.013

Sherman, L. W., Gartin, P. R., & Buerger, M. E. (1989). Hot spots of predatory crime: routine activities and the criminilogy of place. *Criminology, 27*(1), 27-56. doi: 10.1111/j.1745-9125.1989.tb00862.x

Singapore Tourism Board. (2013). Annual report on Tourism statistics 2012. Retrieved from https://www.stbtrc.com.sg/images/links/X1Annual_Report_on_Tourism_Statistics_2009.pdf

Singh, S., Timothy, D. J., & Dowling, R. K. (2003). *Tourism in Destination Communities*. Wallingford, U.K: CABI.

Sirakaya-Turk, E., Uysal, M., Vaske, J. J., & Hammit, W. (Eds.). (2011). *Research Methods for Leisure, Recreation and Tourism*. USA: CABI.

Dabphet, S., Scott, N., & Ruhanen, L. (2012). Applying diffusion theory to destination stakeholder understanding of sustainable tourism development: a case from Thailand. *Journal of Sustainable Tourism, 20*(8), 1107-1124.

Siriwardana, M., & Meng, X. (2013). A CGE assessment of Singapore's tourism policies. *Tourism Management, 34*(1), 25-36. doi: 10.1016/j.tourman.2012.03.006

Skogan, W. G. (2011). Community-based partnerships and crime prevention. *Criminology & Public Policy, 10*(4), 987-990. doi: 10.1111/j.1745-9133.2011.00782.x

Smith, A. E., & Humphreys, M. S. (2006). Evaluation of unsupervised semantic mapping of natural language with Leximancer concept mapping. *Behavior research methods, 38*(2), 262-279. doi: 10.3758/bf03192778

Sofield, T., & Li, S. (2011). Tourism governance and sustainable national development in China: a macro-level synthesis. *Journal of Sustainable Tourism, 19*(4-5), 501-534. doi: 10.1080/09669582.2011.571693

Sommer, R. (1969). *Personal space: the behavioral basis of design*. Englewood Cliffs, N.J Prentice-Hall.

Sorrel, P.-E. (2010). Computer Aided Phenomenography: The role of Leximancer computer software in phenomenographic investigation. *The Qualitative Report, 15*(2), 252-267.

Spencer, S. (2010). *Visual Research Methods in the Social Sciences: Awakening Visions*. Hoboken: Taylor & Francis.

Srisuwan, W., Chantachan, S., & Thidpad, P. (2011). Community participation tourism management model of Tapee plain community. *Journal of Social Sciences, 7*(2), 274-279.

Stanczak, G. C. (2007). *Visual research methods: image, society, and representation*. Thousand Oaks, Calif: Sage Publications.

Steiner, C. J., & Reisinger, Y. (2006). Understanding existential authenticity. *Annals of Tourism Research, 33*(2), 299-318. doi: 10.1016/j.annals.2005.08.002

Stemler, S. E., & Tsai, J. (Eds.). (2008). *Best practices in estimating interrater reliability*. Thousand Oaks, CA: Sage publications.

Stevens, J. (2002). *Applied multivariate statistics for the social sciences*. Mahwah, N.J: L. Erlbaum.

Strang, H. (1999). *Crimes against schools: the potential for a restorative justice approach*. Retrieved from ANU-Centre for Restorative Justice crj.anu.edu.au/menus/PDFs/pubs.hs.rise.doc

Strozier, C. B., & Offer, D. (2011). Freud and his Followers. In Strozier, C., Offer, D., & Abdyli, O. (Eds.). The *Leaders: Psychological Essays (2nd ed.)* (pp. 13-30), New York, NY: Springer.

Sun, S. (2011). Meta-analysis of Cohen's kappa. *Health Services and Outcomes Research Methodology, 11*(3), 145-163. doi: 10.1007/s10742-011-0077-3

Sutherland, E. H. (1937). *An Introduction to Criminology*. London: Methuen & Co.

Sutton, A., Cherney, A., & White, R. (2008). *Crime prevention: principles, perspectives and practices*. Cambridge: Cambridge University Press.

Swarbrooke, J. (2002). *The development and management of visitor attractions*. Oxford: Butterworth-Heinemann.

Tabachnick, B. G., & Fidell, L. S. (2007). *Using Multivariate Statistics*. Boston, Mass: Pearson.

Tajfel, H. (1982). *Social Identity and Intergroup Relations*. Cambridge: Cambridge University Press.

Tashakkori, A., & Teddlie, C. (2010). *Sage handbook of mixed methods in social & behavioral research*. Los Angeles: SAGE Publications.

Teye, V., Sirakaya, E., & F. Sönmez, S. (2002). Residents' attitudes toward tourism development. *Annals of Tourism Research, 29*(3), 668-688. doi: 10.1016/S0160-7383(01)00074-3

Thirumaran, K. (2013). *Managing Graffiti at Tourist Attractions.* In proceedings of the International Conference on Managing the Asian Century (pp. 575-581). ICMAC 2013: International Conference on Managing the Asian Century, 11-13 July 2013, Singapore..

Thompson, K., Offler, N., Hirsch, L., Every, D., Thomas, M. J., & Dawson, D. (2012). From broken windows to a renovated research agenda: A review of the literature on vandalism and graffiti in the rail industry. *Transportation Research Part A: Policy and Practice, 46*(8), 1280-1290. doi: 10.1016/j.tra.2012.04.002

Thurnell-Read, T. (2012). Tourism place and space. *Annals of Tourism Research, 39*(2), 801-819. doi: 10.1016/j.annals.2011.09.009

Timur, S., & Getz, D. (2008a). A network perspective on managing stakeholders for sustainable urban tourism. *International Journal of Contemporary Hospitality Management, 20*(4), 445-461.

Timur, S., & Getz, D. (2008b). Sustainable tourism development: how do destination stakeholders perceive sustainable urban tourism? *Sustainable Development, 17*(4), 220-232.

Tip, B. P. (2009). Sustainable Tourism. *International Trade Forum* (1), 21-23.

Tjong, B. (2006). *Shopping Motivations and their influence on Shopping Experience in Australia and Indonesia.* ResearchOnline. Retrieved from http://jcu.summon.serialssolutions.com/2.0.0/link/0/eLvHCXMwY2BQSEtJSTNJTE02S022tDAzN0s0TzVMNk4xNUkxsEyzSDVC2R2HVJq7CTEwpeaJMri6uYY4e-hinHuTEV8AOYEhHseZyObAnh6wE21mCVq8KMbAAuxAp4ozsKYBIxJIAwtXcaBF4gwcEZbhoRaR3n4QrhCMq1cM3uikV1giDizLwelA11jPAAA8NjiE

Toh, R. (2001). Singapore's tourism industry How its strengths offset economic, social, and environmental challenges. *The Cornell Hotel and Restaurant Administration Quarterly, 42*(1), 42-49.

Tourism Authority of Thailand. (2013). Thailand Tourism Annual Report 2012. Thailand. Retrieved from http://www.tourismthailand.org/About-TAT/annual-report

Tourism Authority of Thailand News Room. (2011). Thai tourism projects strong recovery in 2010. *January 2011*. Retrieved from Today's Traveller Newswire website: http://www.tatnews.org/THAILAND-IN-THE-NEWS/jpg/India/THAI-TOURISM-PROJECTS.jpg

Tourist rips a painting. (1983, February 11, 1983). *The New York Times*. Retrieved from http://www.nytimes.com/1983/02/11/arts/tourist-rips-a-painting.html

Truong, V. D., Hall, C. M., & Garry, T. (2014). Tourism and poverty alleviation: perceptions and experiences of poor people in Sapa, Vietnam. *Journal of Sustainable Tourism, 22*(7), 1-19. doi: 10.1080/09669582.2013.871019

Tygart, C. (1988). Public School Vandalism: Toward a Synthesis of Theories and Transition to Paradigm Analysis. *Adolescence, 23*(89), 187-200.

Tygart, C. E. (1989). Youth Vandalism: Toward a Collective Behavior Approach for the Study of Delinquency. *International Journal of Group Tensions, 19*(2), 173-186.

Tynon, J. F., & Chavez, D. J. (2006a). Adapting a Tourism Crime Typology: Classifying Outdoor Recreation Crime. *Journal of Travel Research, 44*(3), 298-307.

Tynon, J. F., & Chavez, D. J. (2006b). Crime in National Forests: A Call for Research. *Journal of Forestry, 104*(3), 154-157.

van Vliet, W. (1992). The cherry question or the role of social science research in designing against vandalism. In H. H. Christensen, Johnson, D. R., & Brookes, M. H. (Ed.), *Vandalism: Research, Prevention, and Social Policy* (pp. 31-48). Portland: Department of Agriculture Forest Service.

Veal, A. J. (2006). *Research methods for leisure and tourism: a practical guide*. Harlow, Essex, England: Financial Times Prentice Hall.

Vila, B. (1994). A general paradigm for understanding criminal behaviour: extending evolutionary ecological theory. *Criminology, 32*(3), 311-360.

Wall, G. (1993). Towards a tourism typology. In J. G. Nelson, E. R. Babbie & G. Wall (Eds.), *Tourism and Sustainabilty Development: Monitoring, Planning, Managing* (pp. 45-58). Toronto: Department of Geology, University of Waterloo.

Wang, N. (1999). Rethinking authenticity in tourism experience. *Annals of Tourism Research, 26*(2), 349-370. doi: 10.1016/S0160-7383(98)00103-0

Ward, C. C. (1974). *Vandalism*. New York Van Nostrand Reinhold Co.

Ward, D. A., Stafford, M. C., Gray, L. N., & Menke, B. A. (1994). Deterrence, Opportunity, and Choice. *Journal of Applied Social Psychology, 24*(20), 1777-1793. doi: 10.1111/j.1559-1816.1994.tb01574.x

Wearing, S., Stevenson, D., & Young, T. (2010). *Tourist cultures: identity, place and the traveller*. Los Angeles, California: SAGE.

Wearing, S. L., Wearing, M., & McDonald, M. (2009). Understanding local power and interactional processes in sustainable tourism: exploring village–tour operator relations on the Kokoda Track, Papua New Guinea. *Journal of Sustainable Tourism, 18*(1), 61-76. doi: 10.1080/09669580903071995

Weaver, D. (2011). Can sustainable tourism survive climate change? *Journal of Sustainable Tourism, 19*(1), 5-15. doi: 10.1080/09669582.2010.536242

Weaver, D. B. (2001). Ecotourism as mass tourism: contradiction or reality? *Cornell Hotel and Restaurant Administration Quarterly, 42*(2), 104-112.

Weaver, D. B. (2006). *Sustainable tourism: theory and practice*. Amsterdam: Elsevier Butterworth-Heinemann.

Weaver, D. B., & Lawton, L. (2006). *Tourism management*. Milton, Qld: John Wiley & Sons.

Weaver, D. B., & Lawton, L. J. (2011). Information sources for visitors' first awareness of a low profile attraction. *Journal of travel and tourism marketing, 28*(1), 1-12. doi: 10.1080/10548408.2011.535440

Weaver, D. B., & Lawton, L. J. (2013). Resident perceptions of a contentious tourism event. *Tourism Management, 37*, 165-175. doi: 10.1016/j.tourman.2013.01.017

Hu, W., & Wall, G. (2005). Environmental Management, Environmental Image and the Competitive Tourist Attraction. *Journal of Sustainable Tourism, 13*(6), 617-635. doi: 10.1080/09669580508668584

Wildlife Reserves Singapore. (2014). Fast Gacts - Singapore Zoo. from http://www.wrs.com.sg/parks-info-facts.html

Williams, A. M., & Shaw, G. (2009). Future play: tourism, recreation and land use. *Land Use Policy, 26*, S326-S335. doi: 10.1016/j.landusepol.2009.10.003

Williams, M., & Vogt, W. P. (2011). *The SAGE Handbook of Innovation in Social Research Methods*. London: Sage Publications.

Williams, P. W. (1998). Shared decision-making in tourism land use planning. *Annals of Tourism Research, 25*(4), 860-889. doi: 10.1016/S0160-7383(98)00037-1

Wilson, J. Q., & Kelling, G. L. (1982). Broken Windows: The police and neighborhood safety. *The Atlantic Monthly, 249*(3), 29–38.

Wincup, E., & Griffiths, J. (1999). *Crime, deviance and social control*. London: Hodder & Stoughton Educational.

Winfree, L. T., & Abadinsky, H. (2010). *Understanding crime: essentials of criminological theory*. Belmont, CA: Wadsworth Cengage Learning.

Winston, A. S., & Esty, D. C. (2006). *Green to gold: how smart companies use environmental strategy to innovate, create value, and build competitive advantage*. New Haven: Yale University Press.

Wiseman, R. (2008). *Quirkology: The Curious Science Of Everyday Lives*. London: Pan Macmillan.

Witt, C. A., & Muhlemann, A. P. (1994). The implementation of total quality management in tourism: some guidelines. *Tourism Management, 15*(6), 416-424. doi: 10.1016/0261-5177(94)90062-0

Wittek, R., Snijders, T., & Nee, V. (2013). *The Handbook of Rational Choice Social Research*. Palo Alto: Stanford University Press.

Woods, B., & Moscardo, G. (2003). Enhancing Wildlife Education through Mindfulness. *Australian Journal of Environmental Education, 19*, 97-108.

World Tourism Organization. (2013). UNWTO Tourism Highlights. In UNWTO (Ed.). Retrieved from http://www.e-unwto.org/content/hq4538/fulltext.pdf

Wortley, R., & Mazerolle, L. (2012). *Environmental Criminology and Crime Analysis*. Hoboken: Taylor and Francis.

Wu, M.-Y., & Pearce, P. L. (2012). Tourism research in and about Tibet: employing a system for reviewing regional tourism studies. *Tourism and Hospitality Research, 12*(2), 59-72. doi: 10.1177/1467358411434973

Wu, M.-Y., Wall, G., & Pearce, P. L. (2014). Shopping experiences: International tourists in Beijing's Silk Market. *Tourism Management, 41*, 96-106. doi: 10.1016/j.tourman.2013.09.010

Xiao, H., & Smith, S. (2006). The making of tourism researchInsights from a Social Sciences Journal. *Annals of Tourism Research, 33*(2), 490-507.

Xiaorong, N., & Bojian, X. (2013). The application of total quality management in rural tourism in the context of new rural construction: the case in China. *Total Quality Management & Business Excellence, 24*(10), 1188-1201. doi: 10.1080/14783363.2012.661134

Yang, L., & Wall, G. (2008). The evolution and status of tourism planning: Xishuangbanna, Yunnan, China. *Tourism and Hospitality Planning & Development, 5*(2), 165-182. doi: 10.1080/14790530802252818

Yardley, J. (2006, November 26, 2006). Saving the great wall from being loved to death, Commentary, *The New York Times*. Retrieved from http://www.nytimes.com/2006/11/26/travel/26explorer.html?pagewanted=all

Yin, R. K. (2011). *Qualitative Research from Start to Finish*. New York: Guilford Press.

Young, T., Thyne, M., & Lawson, R. (1999). Comparative Study of Tourism Perceptions. *Annals of Tourism Research, 26*(2), 442-445. doi: 10.1016/S0160-7383(98)00087-5

Yu-Ting, H. (2011). A Prototype of Hot Spring Ecological Industrial Park. *Journal of International Management Studies, 6*(1), 1-8.

Zahra, N., Mehrdad, K., & Iman, F. (2011). Assessment and Prioritization of Urban Tourist Attractions Based on Analytical Hierarchy Process. *The Journal of Applied Business and Economics, 12*(4), 122-134.

Zehrer, A., & Crotts, J. C. (2012). Vacation stress: the development of a vacation stress model among US vacation travelers. *Tourism Review, 67*(3), 41-55. doi: 10.1108/16605371211259821

Zhao, R., & Liu, J. (2011). A System's Approach to Crime Prevention: The Case of Macao. *Asian Journal of Criminology, 6*(2), 207-227. doi: 10.1007/s11417-011-9117-8

Appendix A   SELECTION OF VISITOR ATTRACTIONS FOR RESEARCH FIELDWORK

Table A1 List of popular visitor attractions in Singapore recommended by popular travel/tourism websites and sources

Website	Visit Nature Reserve/ Marine reserve	Swimming and water sports	Scenic landmark	Excursion tour	Place of worship	Tour local community	Sample local food/ dining out	Shopping	Amusement/ theme park	Galleries/ museum	National park /wildlife conserve
Singapore Tourism Board	Botanical garden	Sentosa Beach	Marina Bay prescient	Orchard Road	Sri Marriamma temple	China Town	Clark Quay	Taka shimaya mall	Wild Wild Wet water theme park	Asian Civilization Museum	Singapore Zoo
Lonely Planet	Botanical garden	Sentosa Beach	Marina Bay prescient	Orchard Road	Sri Marriamma temple	China Town	Clark Quay	Taka shimaya mall	Wild Wild Wet water theme park	Asian Civilization Museum	Singapore Zoo
Zuji.com	Botanical garden	Sentosa Beach	Marina Bay prescient	Orchard Road	Sri Marriamma temple	China Town	Clark Quay	Taka shimaya mall	Wild Wild Wet water theme park	Asian Civilization Museum	Singapore Zoo
Trip advisor	Botanical garden	Sentosa Beach	Marina Bay prescient	Orchard Road	Sri Marriamma temple	China Town	Clark Quay	Taka shimaya mall	Wild Wild Wet water theme park	Asian Civilization Museum	Singapore Zoo

Table A2 List of popular visitor attractions in Bangkok recommended by popular travel/tourism websites and sources

Website	Visit Nature Reserve/ Marine reserve	Swimming and water sports	Scenic landmark	Excursion tour	Place of worship	Tour local community	Sample local food/ dining out	Shopping	Amusement/ theme park	Galleries/ museum	National park /wildlife conserve
Tourism Authority of Thailand	Lumpini Park	Chao Pharaya river	Grand palace	Prathumwan City Area	Temple of reclining Buddha	China Town	Khaosan Road	Siam Paragon	Siam park City	Jim Thompson House Museum	Dusit Zoo
Lonely Planet	Lumpini Park	Chao Pharaya river	Grand palace	Prathumwan City Area	Temple of reclining Buddha	China Town	Khaosan Road	Siam Paragon	Siam park City	Jim Thompson House Museum	Dusit Zoo
Sawadee.com	Lumpini Park	Chao Pharaya river	Grand palace	Prathumwan City Area	Temple of reclining Buddha	China Town	Khaosan Road	Siam Paragon	Siam park City	Jim Thompson House Museum	Dusit Zoo
Tripadvisor	Lumpini Park	Chao Pharaya river	Grand palace	Prathumwan City Area	Temple of reclining Buddha	China Town	Khaosan Road	Siam Paragon	Siam park City	Jim Thompson House Museum	Dusit Zoo

Table A3 Comparability of visitor attractions in Singapore and Bangkok

Parameter	Nature Reserve/ Marine reserve		Swimming and water sports		Scenic landmark		Excursion tour		Place of worship		Tour local community	
	Singapore	*Bangkok*	*Singapore*	*Bangkok*	*Singapore*	*Bangkok*	*Singapore*	*Bangkok*	*Singapore*	*Bangkok*	*Singapore*	*Bangkok*
	Botanical Garden	Lumpini Park	Sentosa Beach (Siloso)	Chao Pharaya River (Tha Si Phraya)	Marina Bay Prescient	Grand Palace	Orchard Road	Prathum wan City Area	Sri Marriamma temple	Temple of Reclining Buddha	China Town	China Town
Within City limits	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Easily assessable by public transport	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Data collection within Ethics approval guidelines	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Comparable in Size	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Popular visitor attraction	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Comparable in ownership/guardianship	Government council	Government council	Government council	Government council	Government council	Government council	Municipal corporation	Municipal corporation	Community trust	Community trust	Municipal corporation	Municipal corporation

Table A3 Continued

Parameter	Dining out		Shopping		Amusement/ theme park		Galleries/ museum		National park /wildlife conserve	
	Singapore	*Bangkok*	*Singapore*	*Bangkok*	*Singapore*	*Bangkok*	*Singapore*	*Bangkok*	*Singapore*	*Bangkok*
	Clark Quay	Khaosan Road	Takashi-maya Mall	Siam Paragon	Wild Wild Wet	Siam park City	Asian Civilization Museum	Jim Thompson House Museum	Singapore Zoo	Dusit Zoo
Within City limits	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Easily assessable by public transport	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Data collection within Ethics approval guidelines	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Comparable in Size	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Popular visitor attraction	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Comparable in ownership/guardianship	Government council	Government council	Private property	Private property	Private property	Private property	Government council	Government council	Government council	Government council

Appendix B   SUMMARY OF PHYSICAL AUDIT INSTRUMENT DEVELOPMENT

Table B1 Summary of physical audit instrument properties and response categories

Properties	Components	Description	Response categories
Territoriality	Symbolic barriers	Presence of symbolic barriers	Observed from :>75%Agree; 75%-50%Tend to agree; 25%-50%Tend to disagree; <25% Disagree
	Real barriers	Presence of obvious (real) barriers	Observed from :>75%Agree; 75%-50%Tend to agree; 25%-50%Tend to disagree; <25% Disagree
	Signage	Is there a sign identifying where you are?	A sign is present: yes; no
		If there are signs, are they clearly visible or unobstructed?	Sign visible: yes; no
		Are the signs clear and understandable?	Sign clear and understandable: yes; no
		What languages are used in the signs?	List language used in signs
		What does the sign say?	Describe wording of the signage
		Are there Non-Verbal signage?	Non verbal sign present: yes; no
		Do the signs identify the EXIT?	Able to navigate physical setting: yes; no
		Are there enough signs and maps so that people can find their way around?	
Surveill-ance	Informal	Presence of informal elements of surveillance	Observed from :>75%Agree; 75%-50%Tend to agree; 25%-50%Tend to disagree; <25% Disagree
	Natural	Presence of natural elements surveillance	Observed from :>75%Agree; 75%-50%Tend to agree; 25%-50%Tend to disagree; <25% Disagree
	Formal/Organised	Presence of formal or organized elements surveillance	Observed from :>75%Agree; 75%-50%Tend to agree; 25%-50%Tend to disagree; <25% Disagree
	Lighting	Is there sufficient lighting (natural or mechanical)?	Sufficient lighting: yes; no
		Is there any mechanical lights out (not working)?	Lights not working: yes; no; Not applicable
		Is the lighting obstructed by trees, bushes or facility design?	Lights obstructed: yes; no
		Are the access pathways, walkways, alleyways illuminated?	Paths illuminated: yes; no
		It there adequate lighting to ensure visibility of signs and maps?	Visibility of signs: yes; no
	CCTV	Do you see CCTV camera(s)?	Camera visible: yes; no
		If there are cameras, do they appear to be operational?	Camera appear operation: yes; no; NA
		Are the cameras located in open spaces such as foyers, gardens etc.?	Camera located in open space: yes; no; NA
		Are the cameras obstructed by trees, walls, pillars or facility design?	Are cameras obstructed: yes; no; NA
		Do the cameras cover entire physical setting of the site?	Camera cover entire physical setting: yes; no; NA
	Visibility	Is there lighting, mirrors in the public space to ensure visibility?	Lighting ensure visibility : yes; no
		Are all entrances and exits clear of obstruction?	Entry/exit clear of obstruction: yes; no
		Are the alleyways and corners free of obstructions?	Walkways free of obstruction: yes; o
		Are you able to see the walkway, access path clearly?	Access path visible: yes; no

Table B1 Continued

Access Control	Informal measures	Presence of informal *access control* elements	Observed from :>75%Agree; 75%-50%Tend to agree; 25%-50%Tend to disagree; <25% Disagree
	Natural elements	Presence of natural *access control* elements	Observed from :>75%Agree; 75%-50%Tend to agree; 25%-50%Tend to disagree; <25% Disagree
	Formal/Organised	Presence of formal /organized access *control* elements	Observed from :>75%Agree; 75%-50%Tend to agree; 25%-50%Tend to disagree; <25% Disagree
	Mechanical	Presence of automated (mechanical) equipment	Mechanical acess control: yes; no
		Is there information posted describing the hours the facility is	Information: yes; no
		Is there designated ENTRY or EXIT to the site?	Designated entry/exit: yes; no
		Identify the number of entrances and exit points	Number of entry and exit
		Is the entry point(s) unmonitored?	Entry is unmonitored: yes; no
		Is the exit point(s) unmonitored?	Exit is unmonitored: yes; no
		If there is monitoring at the entry, is it controlled?	Is monitored entry controlled: yes; no
Activity Support	Safe activities	Presence of motivation to be involved in "safe" activities	Observed from :>75%Agree; 75%-50%Tend to agree; 25%-50%Tend to disagree; <25% Disagree
	Unsafe activities	Presence of information to avoid "unsafe" activities	Observed from :>75%Agree; 75%-50%Tend to agree; 25%-50%Tend to disagree; <25% Disagree
	General activity support	Is there an information booth or point with suggested itinerary?	Information available: yes; no
		Is there a defined sequence of activities?	Sequence of activities: yes; no
		Are there litter bins all over the site?	Presence of litter bins: yes; no
		Describe the location of the litter bins?	List location of bins
		Are there recycle bins on the site?	Presence of recycle bins: yes; no
		Is there designated seating facility?	Designated sitting: yes' no
		Are there signs to show emergency assistance?	Emergency assistance: yes; no
		Are public transport signs (bus stops and taxi ranks)?	Direction to public transport: yes; no
		Are there foot paths leading to main sections?	Footpaths leading to main section: yes; no
		Are there public announcements to guide visitors?	Public announcements: yes; no
		Are there volunteers/security personnel directing visitors?	Personnel guiding visitors: yes; no
		Did you get a overview of the 'Do' and 'Don't' at the facility?	Overview of expected behaviour: yes; no
		Describe signage. Are symbols used to convey behaviours?	List signage writings
Image/ Maintenanc	Positive image	Form a positive image of the attraction?	Observed from :>75%Agree; 75%-50%Tend to agree; 25%-50%Tend to disagree; <25% Disagree
	Routine	Evidence e of routine repair	Observed from :>75%Agree; 75%-50%Tend to agree; 25%-50%Tend to disagree; <25% Disagree

Table B1 Continued

	Rapid repair and rehabilitation	Signs of rapid repair and rehabilitation	Observed from :>75%Agree; 75%-50%Tend to agree; 25%-50%Tend to disagree; <25% Disagree
	General	Is there litter lying around?	Litter: yes; no
		Are the litter bins overflowing?	Overflowing litter bins: yes; no
		Is there graffiti on the walls?	Presence of graffiti: yes; no
		Is there vandalism or property damage?	Property damage: yes; no
		Are there signs of repair?	Signs of repair: yes; no
		Is the repair work recent?	Recent repair work: yes; no; NA
		Is there any repair work in progress?	Repair work in progress: yes; no
		If repair in progress, are there safety measures for visitors?	Safety measures for visitors: yes; no; NA
		Is there information about reporting maintenance concerns?	Information to report maintenance concern: yes; no
		Is there routine maintenance of public facilities such as resting area, litter bins?	Routine maintenance of public facilities: yes; no
		Is there routine maintenance of toilets?	Routine maintenance of toilets: yes; no
		Are the trees, bushes, grass, flower beds etc. maintained?	Garden manicured: yes; no
		Are there broken leaves, twigs and branches on ground?	Broken leaves, branches: yes; no
Target Hardening	Gated community	Site difficult to vandalize	Observed from :>75%Agree; 75%-50%Tend to agree; 25%-50%Tend to disagree; <25% Disagree
	Target hardening elements	Are there is graffiti, litter or signs of vandalism at the site?	Signs of vandalism: yes; no
		If Yes, do these leave an impression of poor site management?	Poor site management: yes; no; NA
		Are there are corners, recessed doors or alleyways where are not fully visible?	Corners/ alleyways not fully visible: yes; no
		Is any part of the facility secluded?	Any secluded sections: yes; no
		Is any part of the facility without any surveillance?	Sections without surveillance: yes. no
Stakeholder participa-tion	Active participation	Site management	Play active role: yes; no
		Establishments within the site	Play active role: yes; no
		Local government	Play active role: yes; no
		Not for profit/ voluntary organizations	Play active role: yes; no
		General community	Play active role: yes; no
Surround-ing landuse		Land use pattern: Tourist Shops, Retail stores, Offices/ factory, Restaurants, Residential, Roads, Trees/parks/ gardens, River/ beach/ waterfront, Parking space, Public transport, Others	Observable land use: yes; no
	Overall impression	Overall impressions of nearby land use	Impression: good; satisfactory; poor

Table B1 Continued

Observable outcomes of vandalism	Evidence and acts of vandalism	Graffiti	Observable: yes; no
		Carving on rock / wood/ concrete, stone surfaces	Observable: yes; no
		Damage to sculpture / statues	Observable: yes; no
		Litter	Observable: yes; no
		Damage to public - commercial facilities	Observable: yes; no
		Damage to private facilities	Observable: yes; no
		Polluting the water, air pollution	Observable: yes; no
		Damage to underwater corals/ animals and natural environment	Observable: yes; no
		Broken branches/ uprooted plants	Observable: yes; no
		Breakage/ property damage in general	Observable: yes; no
		Abuse/ misuse of tourism infrastructure	Observable: yes; no
	Overall impression	Is the site vandalised	Vandalized: yes; no

Appendix C   STUDY ONE INSTRUMENT: PHYSICAL AUDIT CHECK SHEET

Physical Audit Check sheet

Notes
1.   Record detailed descriptions and narratives. Do not leave it to memory
2.   Take photographs and audio recordings wherever possible
3.   Use other comments and evidence and interpretation section for narratives.

General Area, City	
Outdoors/ Indoors	
Date	
Time	
Number of visitors	

General Impressions of the site	Describe your first initial impressions of the site
□ **Vandalized** □ Not vandalized	--- ---
What 3 words best describe the place in terms of site management?	1. 2. 3.

Properties of the setting (site) Territoriality (perceived sense of ownership by property owners)	Observation : □ **Agree** □ **Tend to agree** □ **Tend to disagree** □ **Disagree**	Evidence and Interpretation
Presence of symbolic barriers (Signage, landscaping, pavement)	□ **Agree** □ **Tend to agree** □ **Tend to disagree** □ **Disagree**	
Presence of obvious (real) barriers (Fence, walls)	□ **Agree** □ **Tend to agree** □ **Tend to disagree** □ **Disagree**	
Signage Is there a sign identifying where you are? If there are signs, are they clearly visible or unobstructed? Are the signs clear and understandable? What languages are used in the signs? What does the sign say? Are there Non-Verbal signage? Do the signs identify the EXIT? **Are there enough signs and maps so that people can find their way around?**	□ Yes □ No □ Yes □ No □ Not Applicable □ Yes □ No □ Not Applicable _ _____ _ _____ □ Yes □ No □ Yes □ No □ Yes □ No	
Other Comments including <u>as it happens account</u>		

Properties of the setting (site) Surveillance (perceived sense of guardianship by the property owner/ guardian)	Observation : □ **Agree** □ **Tend to agree** □ **Tend to disagree** □ **Disagree**	Evidence and Interpretation	
Presence of informal/natural elements (windows, open design, self-surveillance)	□ **Agree** □ **Tend to agree** □ **Tend to disagree** □ **Disagree**		
Presence of formal or organized elements (patrolling by security guard(s), site guides)	□ **Agree** □ **Tend to agree** □ **Tend to disagree** □ **Disagree**		
Lighting Is there sufficient lighting (natural or mechanical)? Is there any mechanical lights out (not working)? Is the lighting obstructed by trees, bushes or facility design? Are the access pathways, walkways, alleyways illuminated? It there adequate lighting to ensure visibility of signs and maps?	□ Yes □ Yes □ Yes □ Yes □ Yes	□ No □ No □ No □ No □ No (see comments)	□ Not Applicable
CCTV Do you see CCTV camera(s)? If there are cameras, do they appear to be operational? Are the cameras located in open spaces such as foyers, gardens etc.? Are the cameras obstructed by trees, walls, pillars or facility design? Do the cameras cover entire physical setting of the site?	□ Yes □ Yes □ Yes □ Yes □ Yes	□ No □ No □ No □ No □ No	□ Not Applicable □ Not Applicable □ Not Applicable □ Not Applicable
Visibility Is there lighting, mirrors, cameras in the public space to ensure visibility? Are all entrances and exits of corridors, walkways, stairs, clear of obstruction? Are the alleyways and corners free of obstructions? Are you able to see the walkway, access path clearly?	□ Yes □ Yes □ Yes □ Yes	□ No □ No □ No □ No	
Other Comments including <u>as it happens account</u>			

Properties of the setting (site) Access Control (Controlled access to site increases perceived risk of deviant behaviour)	Observation : □ **Agree** □ **Tend to agree** □ **Tend to disagree** □ **Disagree**	
Presence of informal *access control* elements (physical design, landscaping)	□ **Agree** □ **Tend to agree** □ **Tend to** disagree □ **Disagree**	
Presence of natural access control elements (water bodies, wooded area)	□ **Agree** □ **Tend to agree** □ **Tend to disagree** □ **Disagree**	
Presence of formal/organized (gantry, security personnel, gates)	□ **Agree** □ **Tend to agree** □ **Tend to** disagree □ **Disagree**	
Presence of automated (mechanical) equipment	□ Yes □ No	
Access Is there information posted describing the hours the facility is legitimately open? Is there designated ENTRY or EXIT to the site? Identify the number of entrances and exit points Is the entry point(s) unmonitored? (Camera, security guard etc.) Is the exit point(s) unmonitored? If there is monitoring at the entry, is it controlled? (Entry pass, ID check, gantry)	□ Yes □ No □ Yes □ No _____ □ Yes □ No □ Yes □ No □ Yes □ No	
Other Comments including <u>as it happens account</u>		

Properties of the setting (site) Activity Support (Intended patterns of usage)	Observation : □ **Agree** □ **Tend to agree** □ **Tend to disagree** □ **Disagree**	
Presence of motivation to be involved **in "safe" activities**	□ **Agree** □ **Tend to agree** □ **Tend to disagree** □ **Disagree**	
Presence of information to avoid **"unsafe" activities (Warning, Public** Announcement, guide books)	□ **Agree** □ **Tend to agree** □ **Tend to disagree** □ **Disagree**	
Is there an information booth or point with suggested itinerary? Is there a defined sequence of activities? Are there litter bins all over the site? Describe the location of the litter bins? Are there recycle bins on the site? Is there designated seating facility? Are there signs to show information centre or emergency assistance? Are public transport signs (bus stops and taxi ranks)? Are there foot paths leading to main sections? Are there public announcements to guide visitors? Are there volunteers/security personnel directing visitors? Did you get a **overview of the 'Do' and 'Don't' at the facility?** Describe signage. Are symbols used to convey behaviours?	□ Yes □ No □ Yes □ No □ Yes □ No □ Yes □ No □ Yes □ No □ Yes □ No □ Yes □ No □ Yes □ No □ Yes □ No □ Yes □ No □ Yes □ No _____ _____	
Other Comments including <u>as it happens account</u>		

Properties of the setting (site) Image/ Maintenance (provides positive impression to visitor)	Observation : □ **Agree** □ **Tend to agree** □ **Tend to disagree** □ **Disagree**	
Positive image (clean, maintained, functional etc.)	□ **Agree** □ **Tend to agree** □ **Tend to disagree** □ **Disagree**	
Routine maintenance	□ **Agree** □ **Tend to agree** □ **Tend to disagree** □ **Disagree**	
Rapid repair and rehabilitation	□ **Agree** □ **Tend to agree** □ **Tend to disagree** □ **Disagree**	
Is there litter (leftover food, packaging, temple offerings etc).lying around? Are the litter bins overflowing? Is there graffiti on the walls? Is there vandalism or property damage? Are there signs of repair? Is the repair work recent? Is there any repair work in progress? If repair in progress, are there safety measures for visitors? Is there information about reporting maintenance concerns? Is there routine maintenance of public facilities such as resting area, litter bins? Is there routine maintenance of toilets? Are the trees, bushes, grass, flower beds etc. maintained? Are there broken leaves, twigs and branches on ground?	□ Yes □ No □ Yes □ No □ Yes □ No □ Yes □ No □ Yes □ No □ Yes □ No □ Not Applicable □ Yes □ No □ Yes □ No □ Not Applicable □ Yes □ No □ Not Applicable □ Yes □ No □ Yes □ No □ Yes □ No □ Yes □ No	
Other Comments including <u>as it happens account</u> 		

Properties of the setting (site) Target Hardening (Extent of gated community)	Observation : □ **Agree** □ **Tend to agree** □ **Tend to disagree** □ **Disagree**	Evidence and Interpretation	
Are there is graffiti, litter or signs of vandalism at the site? If Yes, do these leave an impression of poor site management? Are there are corners, recessed doors or alleyways where are not fully visible? Is any part of the facility secluded? Is any part of the facility without any surveillance?	□ Yes □ Yes □ Yes □ Yes □ Yes	□ No □ No □ No □ No □ No	
Other Comments There is need for former/ organized surveillance.			
Properties of the setting (site) Stakeholder participation (active involvement in site administration)	Observation :	Evidence and Interpretation	
Site management	□ Yes □ No		
Establishments within the site	□ Yes □ No		
Local government	□ Yes □ No		
Not for profit/ voluntary organizations	□ Yes □ No		
General community	□ Yes □ No		
Other Comments including as it happens account			

Properties of the setting (site) Surrounding Land use (within immediate (1km) vicinity of the site)			Evidence and Interpretation
Tourist Shops	□ Yes	□ No	
Retail stores	□ Yes	□ No	
Offices/ factory	□ Yes	□ No	
Restaurants	□ Yes	□ No	
Residential	□ Yes	□ No	
Roads	□ Yes	□ No	
Trees/parks/ gardens	□ Yes	□ No	
River/ beach/ waterfront	□ Yes	□ No	
Parking space	□ Yes	□ No	
Public transport	□ Yes	□ No	
Others	□ Yes	□ No	
Overall impressions of nearby land use	Impressions : □ **Good** □ **Satisfactory** □ **Poor**		Explain your selection:
Other Comments			

Typology of acts of vandalism

Observable Outcomes	Observation	Interpretation / As it happens account
Graffiti	□ No □ Yes If Yes specify location _____	
Carving on rock / wood/ concrete, stone surfaces	□ No □ Yes If Yes specify location _____	
Damage to sculpture / statues	□ No □ Yes If Yes specify location _____	
Litter	□ No □ Yes If Yes specify location _____	
Damage to public - commercial facilities (owned by local authorities/ town council/ community)	□ No □ Yes If Yes specify location _____	
Damage to private facilities (privately owned)	□ No □ Yes If Yes specify location _____	
Polluting the water, air pollution	□ No □ Yes If Yes specify location _____	
Damage to underwater corals/ animals and natural environment	□ No □ Yes If Yes specify location _____	
Broken branches/ uprooted plants	□ No □ Yes If Yes specify location _____	
Breakage/ property damage in general	□ No □ Yes If Yes specify location _____	
Abuse/ misuse of tourism infrastructure (resting place, shelters, car parks, rest rooms)	□ No □ Yes If Yes specify location _____	

Appendix D   STUDY TWO INSTRUMENT: COMMUNITY QUESTIONNAIRE (THAILAND)

NO. T_____

แบบสอบถามภาคชุมชน

Thank you for agreeing to take this survey. This survey is designed to gain community views on participation in visitor attraction planning and management. The survey contributes to the PhD research work of Abhishek Bhati. The results of this study will help in promoting sustainable tourism practices in your region and beyond. It takes about 15-20 minutes to complete this questionnaire.

ขอขอบคุณที่สละเวลาทำแบบสอบถามชุดนี้แบบสอบถามนี้มีวัตถุประสงค์เพื่อต้องการทราบความเห็นของภาคชุมชนเกี่ยวกับประสบการณ์การมีส่วนร่วมในการวางแผนและจัดการแหล่งท่องเที่ยว งานวิจัยนี้เป็นส่วนหนึ่งของงานวิจัยระดับชั้นปริญญาเอกของ Abhishek Bhati ผลการวิจัยนี้จะช่วยเสริมสร้างการท่องเที่ยวยั่งยืนในท้องถิ่นของท่าน แบบสอบถามนี้จะใช้เวลาประมาณ 15-20 นาที

Please indicate your response by marking a tick (✓) in the appropriate box for each question.

กรุณาตอบคำถามโดยการ (✓) ในช่องสี่เหลี่ยมที่เหมาะสมในแต่ละคำถาม

A. COMMUNITY ATTITUDE TOWARDS PROPERTY DAMAGE
ทัศนคติของชุมชนต่อการทำลายสถานที่ท่องเที่ยว

Attractions in Bangkok (Thailand) are facing property damage (vandalism) by visitors such as graffiti, breakage, litter and defacing surfaces.

สถานที่ท่องเที่ยวในกรุงเทพ (ประเทศไทย)กำลังประสบปัญหาในการถูกทำลายโดยนักท่องเที่ยวเช่น การทำลาย การทิ้งขยะ การทำลายพื้นผิวหน้าของวัตถุที่เป็นส่วนหนึ่งในสถานที่ท่องเที่ยว

1. Are you familiar with the _____ attraction in your area?
    คุณคุ้นเคยกับ(ใส่ชื่อสถานที่)_____สถานที่ท่องเที่ยวในพื้นที่ของคุณหรือไม่?
    ☐ Yes   ใช่   ☐ No ไม่

2. How often do you visit the _____ attraction?
    คุณไปเยี่ยมชม(ใส่ชื่อสถานที่)_____สถานที่ท่องเที่ยวบ่อยแค่ไหน?

    ☐ Daily ทุกวัน   ☐ Once a week อาทิตย์ละครั้ง   ☐ Once a month เดือนละครั้ง   ☐ Once a ปีละครั้ง year

    ☐ Do not visit at all ไม่เคยไปเลย

3. Are you aware of property damage by visitors at _____ attraction?
    คุณเคยตระหนักหรือไม่ว่า(ใส่ชื่อสถานที่)_____ได้ถูกทำลายโดยนักท่องเที่ยว?

    ☐ Yes   ใช่   ☐ No   ไม่   ☐ Not sure ไม่แน่ใจ

4. Would you say the following acts of property damage are a major problem, minor problem or not a problem at the attraction?
คุณคิดว่าการกระทำต่อไปนี้ต่อสถานที่ท่องเที่ยวเป็นการทำลายระดับมาก น้อยหรือไม่ใช่ปัญหา?

	Major Problem ปัญหาหลัก	Minor Problem ปัญหารอง	Not a Problem ไม่ใช่ปัญหา
Graffiti การขีดเขียนวาดรูปบนกำแพง	☐	☐	☐
Carving on surfaces การสลักบนพื้นผิวของวัตถุในสถานที่ท่องเที่ยว	☐	☐	☐
Litter ปัญหาขยะ	☐	☐	☐
Defacing statues/artefacts การทำลายพื้นผิวของรูปปั้น หรือสิ่งแสดงทางศิลปะในสถานที่ท่องเที่ยว	☐	☐	☐
Breakage in toilets ปัญหาเรื่องการทำลายห้องน้ำในสถานที่ท่องเที่ยว	☐	☐	☐
Breakage of public facilities การทำลายสิ่งอำนวยความสะดวกของชุมชน	☐	☐	☐
Breakage of private property การทำลายทรัพย์สินส่วนตัวของชาวบ้าน	☐	☐	☐
Damage to natural environment การทำลายสิ่งแวดล้อมทางธรรมชาติโดยรอบ	☐	☐	☐

Specify other problems. Mark (A) for a major problem A) or (B) for a minor problem
กรุณาระบุปัญหาอื่นที่ที่เกี่ยวการทำลายธรรมชาติในสถานที่ท่องเที่ยว
เขียนกำกับ (ก.)สำหรับปัญหาหลัก (ข.)สำหรับปัญหารอง

_____

5. What do you feel is the single most important problem related to property damage by visitors in the attraction?
ในความรู้สึกของคุณอะไรคือปัญหาที่ใหญ่ที่สุดที่เกิดจากการทำลายสถานที่ท่องเที่ยว

_____

6. In your opinion what should be done to overcome the problem? (maximum 2 suggestions)
ในความคิดของคุณอะไรคือวิธีแก้ปัญหา (กรุณาแนะนำ 2ข้อ)

a. _____

b. _____

7. Who do you think causes property damage at the attraction? คุณคิดว่าใครคือสาเหตุในการทำลายแหล่งท่องเที่ยว

	Strongly Agree เห็นด้วยอย่างยิ่ง	Agree เห็นด้วย	Not Sure ไม่แน่ใจ	Disagree ไม่เห็นด้วย	Strongly Disagree ไม่เห็นด้วยอย่างยิ่ง
Local youths วัยรุ่นในพื้นที่	☐	☐	☐	☐	☐
Local adults ผู้ใหญ่ในพื้นที่	☐	☐	☐	☐	☐
Visitors from other parts of Thailand นักท่องเที่ยวที่มาจากส่วนอื่นของประเทศไทย	☐	☐	☐	☐	☐
International tourists นักท่องเที่ยวต่างชาติ	☐	☐	☐	☐	☐
Others, please Specify: _____ อื่นๆกรุณาระบุ	☐	☐	☐	☐	☐

8. Compared to the current level of property damage at _____ attraction, do you feel the damage one year ago was: ถ้าให้เปรียบเทียบระดับความเสียหายของ(ใส่ชื่อสถานที่)_____ในปัจจุบันกับความเสียหายเมื่อปีที่แล้ว คุณคิดว่าความเสียหายต่างกันอย่างไร

☐ Much less น้อยลงมาก   ☐ Little less น้อยลงบ้าง   ☐ Worse แย่ที่สุด   ☐ Not sure ไม่แน่ใจ

9. Compared to the current level of property damage, do you think the attraction site will be changed in terms of incidences of property damage, in the next 2 years? ถ้าให้เปรียบเทียบระดับความเสียหายในปัจจุบันกับในอีก 2 ปีข้างหน้า คุณคิดว่าความเสียหายของสถานที่จะแตกต่างกันอย่างไร

☐ Much better ดีกว่าเดิมมาก ☐ Little better ดีกว่าเดิมบ้าง ☐ Worse แย่ที่สุด ☐ Not sure ไม่แน่ใจ

10. What would be the 2 changes you want to make to manage property damage in _____ attraction? อะไรคือสิ่งที่คุณอยากเปลี่ยนแปลง 2 สิ่งเพื่อที่จะจัดการกับความเสียหายของสถานที่ท่องเที่ยว?

a. _____

b. _____

11. Please indicate your opinion on the following statements. กรุณาระบุความคิดของคุณตามข้อความข้างล่างต่อไปนี้

	Strongly Agree เห็นด้วยอย่างยิ่ง	Agree เห็นด้วย	Not Sure ไม่แน่ใจ	Disagree ไม่เห็นด้วย	Strongly Disagree ไม่เห็นด้วยอย่างยิ่ง
It is rude to correct visitors with anti-social behaviours มันเป็นสิ่งที่หยาบคายที่จะเตือนนักท่องเที่ยวเมื่อมีพฤติกรรมที่ไม่เหมาะส	☐	☐	☐	☐	☐
Correcting visitor behaviour reduces visitation to the attraction area การเตือนนักท่องเที่ยวจะทำให้นักท่องเที่ยวมาเที่ยวในสถานที่ท่องเที่ยวน้อยลง	☐	☐	☐	☐	☐
It is not my responsibility to check correct vandalism in the attraction มันไม่ใช่หน้าที่ของฉันในการตรวจตรานักท่องเที่ยว	☐	☐	☐	☐	☐
I take pride in being recognised as part of the attraction's community ฉันมีความภูมิใจที่ได้เป็นส่วนหนึ่งของสถานที่ท่องเที่ยวในชุมชนนี้	☐	☐	☐	☐	☐

12. Please tell us how strongly you agree with the following statements about effects of property damage คุณเห็นด้วยมากแค่ไหนกับข้อความดังต่อไปนี้เกี่ยวกับผลกระทบของความเสียหายของสถานที่ท่องเที่ยว

	Strongly Agree เห็นด้วยอย่างมาก	Agree เห็นด้วย	Not Sure ไม่แน่ใจ	Disagree ไม่เห็นด้วย	Strongly Disagree ไม่เห็นด้วยอย่างยิ่ง
Property damage affects my visitor experience at the attraction ความเสียหายของสถานที่ท่องเที่ยวมีผลกระทบต่อประสบการณ์ในการท่องเที่ยวของนักท่องเที่ยว	☐	☐	☐	☐	☐
Property damage affects the number of visitors to the attraction? attraction ความเสียหายของสถานที่ท่องเที่ยวมีผลกระทบต่อจำนวนนักท่องเที่ยวที่มาเที่ยวในสถานที่นั้นๆ	☐	☐	☐	☐	☐
Only for business owners สำหรับเจ้าของธุรกิจ					
My Business is affected by property damage at the attraction? ธุรกิจของฉันได้รับผลกระทบเมื่อสถานที่ท่องเที่ยวถูกทำลาย	☐	☐	☐	☐	☐
Only for residents สำหรับผู้พักอาศัย					
My residential experience is affected by property damage at the attraction พื้นที่พักอาศัยที่ฉันพักอยู่ได้รับผลกระทบหากสถานที่ท่องเที่ยวถูกทำลาย	☐	☐	☐	☐	☐

B. CURRENT ACTION AND ITS EFFECTIVENESS IN ADDRESSING PROPERTY DAMAGE

ข้อปฏิบัติและผลกระทบในการมีส่วนร่วมในการตรวจสอบการถูกทำลายของสถานที่ท่องเที่ยว

13. Please indicate your current involvement in initiatives to address property damage.กรุณาระบุการมีส่วนร่วมในการเริ่มต้นตรวจตราความเสียหายของสถานที่ท่องเที่ยว

	Strongly Agree เห็นด้วยอย่างมาก	Agree เห็นด้วย	Not Sure ไม่แน่ใจ	Disagree ไม่เห็นด้วย	Strongly Disagree ไม่เห็นด้วยอย่างยิ่ง
Personally intervene to check property damage ควรตรวจตราความเสียหายของสถานที่ท่องเที่ยวด้วยตัวเอง	☐	☐	☐	☐	☐
Inform enforcing agents such as security guards and police แจ้งหน่วยงานที่เกี่ยวข้อง เช่น หน่วยรักษาความปลอดภัยและตำรวจ	☐	☐	☐	☐	☐
Participate in social intervention มีส่วนร่วมกับท้องที่นั้นๆในการตรวจสอบความเสียหายของสถานที่ท่องเที่ยว เช่น โครงการ การเฝ้าระวังในการทำลายสถานที่ท่องเที่ยว (community watch group, campaign)	☐	☐	☐	☐	☐
Talk about the problem with other residents แสดงความคิดเห็นเกี่ยวกับปัญหาของการถูกทำลายขอสถานที่ท่องเที่ยวกับผู้พักอาศัยคนอื่นๆ	☐	☐	☐	☐	☐
Do not feel responsible for the property damage ไม่รู้สึกรับผิดชอบต่อการถูกทำลายของสถานท่องเที่ยว	☐	☐	☐	☐	☐
Specify your other forms of involvements กรุณาระบุความเห็นนอกเหนือไปจากข้างบนในการมีส่วนร่วม					

14. Do you feel your action is effective in reducing property damage in the attraction?
คุณรู้สึกอย่างไรกับการกระทำของคุณที่มีผลให้การทำลายสถานที่ท่องเที่ยวลดน้อยลง

☐ Very effective   ☐ Effective   ☐ Not sure   ☐ Largely ineffective   ☐ Ineffective
มีประสิทธิภาพมาก   มีประสิทธิภาพ   ไม่แน่ใจ   ไม่มีประสิทธิภาพอย่างมาก   ไม่มีประสิทธิภาพ

15. Please indicate the local community's involvement in addressing property damage.
กรุณาระบุชุมชนมีส่วนร่วมในการตรวจตราการถูกทำลายของสถานที่ท่องเที่ยว

	Strongly Agree เห็นด้วยอย่างมาก	Agree เห็นด้วย	Not Sure ไม่แน่ใจ	Disagree ไม่เห็นด้วย	Strongly Disagree ไม่เห็นด้วยอย่างมาก
Public Relation campaign โครงการประชาสัมพันธ์	☐	☐	☐	☐	☐
Form a task-force together with attraction management ตั้งกลุ่มเฉพาะกิจในการตรวจตราการถูกทำลายของสถานที่ท่องเที่ยว	☐	☐	☐	☐	☐
Organize public lecture or education program for residents จัดให้มีการอบรมหรือให้ความรู้ในการตรวจตราการถูกทำลายของสถานที่ท่องเที่ยวแก่ผู้พักอาศัยในพื้นที่นั้นๆ	☐	☐	☐	☐	☐
Informal volunteer group to check property damage in attractions จัดกลุ่มอย่างไม่เป็นทางการในการตรวจตราการถูกทำลายของสถานที่ท่องเที่ยว	☐	☐	☐	☐	☐
Specify other community involvements: กรุณาระบุการมีส่วนร่วมอื่นๆของชุมชนในการตรวจตราการถูกทำลายแหล่งท่องเที่ยว					

16. Do you feel the community action is effective in reducing property damage in the attraction? คุณรู้สึกอย่างไรกับการปฏิบัติของชุมชนในการลดการทำลายสถานที่ท่องเที่ยว

☐ Very effective   ☐ Effective   ☐ Not sure   ☐ Largely ineffective   ☐ Ineffective
มีประสิทธิภาพมาก   มีประสิทธิภาพ   ไม่แน่ใจ   ไม่มีประสิทธิภาพอย่างมาก   ไม่มีประสิทธิภาพ

17. Please tell us about the actions taken by the site management to address property damage.
กรุณาบอกเราเกี่ยวกับมาตรการรับมือของหน่วยงานหรือองค์การใจการจัดการกับปัญหาสถานที่ท่องเที่ยวถูกทำลาย

	Strongly Agree เห็นด้วยอย่างมาก	Agree เห็นด้วย	Not Sure ไม่แน่ใจ	Disagree ไม่เห็นด้วย	Strongly Disagree ไม่เห็นด้วยอย่างมาก
Improve design of physical setting to provide guardianship ปรับปรุงการออกแบบพื้นที่ที่เอื้อกับการป้องกัน	☐	☐	☐	☐	☐
Employ security personnel and staff to provide surveillance เพิ่มการจ้างเจ้าหน้าที่รักษาความปลอดภัยและพนักงานในการตรวจตรา	☐	☐	☐	☐	☐
Deploy mechanical surveillance (Eg. CCTV and lighting) จัดให้มีการใช้กล้องวงจรปิด หรือ เซ็นเซอร์ในการตรวจตรา	☐	☐	☐	☐	☐
Provide adequate signage and information for visitors จัดให้มีป้ายสัญลักษณ์ที่เพียงพอและให้ข้อมูลกับนักท่องเที่ยว	☐	☐	☐	☐	☐
Routine maintenance of attraction amenities จัดให้มีตารางการซ่อมบำรุงสถานที่ท่องเที่ยวและสิ่งอำนวยความสะดวกต่างๆ	☐	☐	☐	☐	☐
Protection of artefacts and property การปกป้องผลงานทางศิลปะและอุปกรณ์ต่างๆ	☐	☐	☐	☐	☐

Specify other actions: กรุณาระบุข้อปฏิบัติอื่นๆ

18. Do you feel the site management action is effective in reducing property damage in the attraction? คุณรู้สึกอย่างไรกับมาตรการการรับมือต่อการทำลายของสถานที่ท่องเที่ยวขององค์กรหรือหน่วยงานของสถานที่นี้

☐ Very effective   ☐ Effective   ☐ Not sure   ☐ Largely ineffective   ☐ Ineffective
มีประสิทธิภาพมาก   มีประสิทธิภาพ   ไม่แน่ใจ   ไม่มีประสิทธิภาพอย่างมาก   ไม่มีประสิทธิภาพ

19. Please tell us about the actions taken by the local council or the government to address property damage.
กรุณาบอกเกี่ยวกับผลการปฏิบัติงานของหน่วยงานท้องถิ่นหรือรัฐบาล ต่อการดูแลปัญหาสถานที่ท่องเที่ยวถูกทำลาย

	Strongly Agree เห็นด้วยอย่างยิ่ง	Agree เห็นด้วย	Not Sure ไม่แน่ใจ	Disagree ไม่เห็นด้วย	Strongly Disagree ไม่เห็นด้วยอย่างยิ่ง
Improve design of physical setting to provide guardianship guardianship ปรับปรุงการออกแบบพื้นที่ที่เอื้อกับการป้องกัน	☐	☐	☐	☐	☐
Employ enforcing agents such as tourism police and security guards เพิ่มการจ้างเจ้าหน้าที่รักษาความปลอดภัยและพนักงานในการตรวจตรา	☐	☐	☐	☐	☐
Deploy mechanical surveillance (Eg. CCTV and lighting) จัดให้มีการใช้กล้องวงจรปิด หรือ เซ็นเซอร์ในการตรวจตรา	☐	☐	☐	☐	☐
Provide signage and information centres จัดให้มีป้ายสัญลักษณ์ที่เพียงพอและให้ข้อมูลกับนักท่องเที่ยว	☐	☐	☐	☐	☐
Routine maintenance of public facilities จัดให้มีตารางการซ่อมบำรุงสถานที่ท่องเที่ยวและสิ่งอำนวยความสะดวกต่างๆ	☐	☐	☐	☐	☐
Improve land use around the attraction การปรับปรุงพื้นที่ใช้สอยรอบๆสถานที่ท่องเที่ยว	☐	☐	☐	☐	☐
Specify other council/govt. actions: กรุณาระบุหน้าที่อื่นของภาครัฐและหน่วยงานท้องถิ่น					

20. Do you feel the government action is effective in reducing property damage in the attraction?
คุณรู้สึกอย่างไรเกี่ยวกับผลการปฏิบัติงานของภาครัฐในการช่วยลดการถูกทำลายของสถานที่ท่องเที่ยว

☐ Very effective
มีประสิทธิภาพมาก
☐ Effective
มีประสิทธิภาพ
☐ Not sure
ไม่แน่ใจ
☐ Largely ineffective
ไม่มีประสิทธิภาพอย่างมาก
☐ Ineffective
ไม่มีประสิทธิภาพ

21. Do you think there is joint action between the community, attraction management and the government to combat property damage? คุณคิดว่ามีการร่วมมือกันหรือไม่ ระหว่างชุมชน หน่วยงานท้องถิ่น และภาครัฐในรับมือกับปัญหาสถานที่ท่องเที่ยวถูกทำลาย

☐ Always สม่ำเสมอ
☐ Sometimes บางครั้ง
☐ Rarely แทบจะไม่
☐ Never ไม่เคย

22. If there is joint action, in your opinion is it effective in reducing property damage in the attraction? หากมีการร่วมมือกัน
คุณคิดว่ามาตรการการการรับมือนี้จะสามารถลดปัญหาสถานที่ท่องเที่ยวถูกทำลายได้อย่างมีประสิทธิภาพหรือไม่

☐ Very effective
มีประสิทธิภาพมาก
☐ Effective
มีประสิทธิภาพ
☐ Not sure
ไม่แน่ใจ
☐ Largely ineffective
ไม่มีประสิทธิภาพอย่างมาก
☐ Ineffective
ไม่มีประสิทธิภาพ

C. DESIRED LEVEL OF PERSONAL INVOLVEMNET

ระดับความต้องการของคุณในการมีส่วนร่วม

23. Please indicate how strongly you agree with the desired level of involvement in addressing property damage in attractions.
กรุณาระบุว่าคุณเห็นด้วยมากแค่ไหนกับระดับของการมีส่วนร่วมในการป้องกันการถูกทำลายของสถานที่ท่องเที่ยว

	Strongly Agree เห็นด้วยอย่างยิ่ง	Agree เห็นด้วย	Not Sure ไม่แน่ใจ	Disagree ไม่เห็นด้วย	Strongly Disagree ไม่เห็นด้วยอย่างยิ่ง
Be the champion of site management เป็นหัวเรือใหญ่ในการจัดการสถานที่ท่องเที่ยวเอง	☐	☐	☐	☐	☐
Assist in site management เป็นผู้ช่วยในการจัดการสถานที่ท่องเที่ยว	☐	☐	☐	☐	☐
Contribute as a committee member on regular basis (review board, task force) มีส่วนร่วมโดยเป็นส่วนหนึ่งของคณะกรรมการในการประชุมตามวาระเกี่ยวกับการทบทวนนโยบายและการปฏิบัติงาน	☐	☐	☐	☐	☐
Supplement decision making สนับสนุนการตัดสินใจ	☐	☐	☐	☐	☐
Participate in discussion and feedback sessions (eg. Citizen survey) มีส่วนร่วมในการแลกเปลี่ยนความคิดและสะท้อนความเห็น(การทำสำรวจภาคชุมชน)	☐	☐	☐	☐	☐
Educational and support building สนับสนุนในการสร้างความรู้	☐	☐	☐	☐	☐
Please list other forms. Mark (A) if you Strongly Agree or (B) if you Agree. กรุณาเขียนความคิดเห็นอื่น ถ้าคุณเห็นด้วยอย่างยิ่งหรือเห็นด้วย					

24. Please tell us how strongly you agree with the following statements about involvement in addressing property damage.
กรุณาระบุว่าคุณเห็นด้วยมากแค่ไหนกับข้อความดังต่อไปนี้เกี่ยวกับการมีส่วนร่วมในการป้องกันการถูกทำลายของสถานที่ท่องเที่ยว

	Strongly Agree เห็นด้วยอย่างยิ่ง	Agree เห็นด้วย	Not Sure ไม่แน่ใจ	Disagree ไม่เห็นด้วย	Strongly Disagree ไม่เห็นด้วยอย่างยิ่ง
I want to participate in reducing vandalism ฉันมีความต้องการที่จะมีส่วนร่วมในการตรวจตราการทำลายสถานที่ท่องเที่ยว	☐	☐	☐	☐	☐
I want the local council / government to assist me in managing vandalism ฉันต้องการให้ภาครัฐและหน่วยงานท้องถิ่นให้การสนับสนุนในการจัดการการลดการทำลายสถานที่ท่องเที่ยว	☐	☐	☐	☐	☐
I want to be involved in a community initiate to manage vandalism ฉันต้องการให้ชุมชนริเริ่มในการมีส่วนร่วมในการจัดการการลดการทำลายสถานที่ท่องเที่ยว	☐	☐	☐	☐	☐
I feel I can help the site management to managing property damage ฉันรู้สึกว่าฉันสามารถช่วยจัดการการลดการทำลายสถานที่ท่องเที่ยว	☐	☐	☐	☐	☐

D. DEMOGRAPHIC PROFILE
ข้อมูลส่วนตัว

25. What is your gender? เพศ

☐ Male   ชาย   ☐ Female หญิง

26. Please indicate your age group กรุณาระบุช่วงอายุของคุณ

☐ อายุต่ำกว่า 22 ปี   ☐ อายุระหว่าง 22-35 ปี   ☐ 36–50 years old อายุระหว่าง 36-50 ปี

☐ 51–65 years old อายุระหว่าง 51-65 ปี   ☐ Above 65 years old อายุมากกว่า 65 ปี

27. Please indicate your annual income group. กรุณาระบุกลุ่มรายได้ต่อปี

☐ High income group   ☐ Middle income group   ☐ Low income group
อยู่ในกลุ่มรายระดับบน   อยู่ในกลุ่มรายได้ระดับกลาง   อยู่ในกลุ่มรายได้ระดับล่าง

Only for Household residents   สำหรับผู้พักอาศัย
28a. Please indicate your occupation type.กรุณาระบุประเภทอาชีพของคุณ

☐ Employed full-timeลูกจ้างเต็มเวลา   ☐ Employed part-timeลูกจ้างชั่วคราว   ☐ Self employed ทำธุรกิจส่วนตัว

☐ Retired เกษียณอายุ   ☐ Homemaker ทำธุรกิจที่บ้าน   ☐ Unemployed ว่างงาน

Only for Businesses/ Organisations สำหรับองค์กรหรือธุรกิจ
28b. Please indicate the nature of your business operations กรุณาระบุลักษณะธุรกิจของคุณ

☐ Catering to tourist/visitor customers   ☐ Catering to local community customers
ธุรกิจบริการให้กับแขกและนักท่องเที่ยว   ธุรกิจบริการให้กับลูกค้าในชุมชนและท้องถิ่น
☐ Catering to visitors and local   ☐ Business not dependent on local customers
customersธุรกิจบริการให้กับนักท่องเที่ยวและลูกค้าในพื้นที่นั้นๆ   เป็นธุรกิจที่ไม่ขึ้นตรงกับลูกค้าในท้องถิ่นนั้น

29. How long have you lived or operated a business in the current location? ธุรกิจของคุณเปิดดำเนินการมาเป็นระยะเวลาเท่าไร

☐ Less than one year   ☐ Between 1-3 years   ☐ Between 3-5 years   ☐ More than 5 years
น้อยกว่า 1ปี   ระหว่าง 1-3 ปี   ระหว่าง 1-5 ปี   มากกว่า 5 ปี

THANK YOU VERY MUCH
ขอบคุณมากครับ

NO. S_____

Community Survey Questionnaire

JAMES COOK
UNIVERSITY
AUSTRALIA

Thank you for agreeing to take this survey. This survey is designed to gain community views on participation in visitor attraction planning and management. The survey contributes to the PhD research work of Abhishek Bhati. The results of this study will help in promoting sustainable tourism practices in your region and beyond. It takes about 15-20 minutes to complete this questionnaire.

Please indicate your response by marking a tick (✓) in the appropriate box for each question.

A. COMMUNITY ATTITUDE TOWARDS PROPERTY DAMAGE

Attractions in Singapore are facing property damage (vandalism) by visitors such as graffiti, breakage, litter and defacing surfaces.

1. Are you familiar with the _____ attraction in your area?
☐ Yes   ☐ No

2. How often do you visit the _____ attraction?

☐ Daily   ☐ Once a week ☐ Once a month   ☐ Once a year   ☐ Do not visit at all

3. Are you aware of property damage by visitors at _____ attraction?

☐ Yes   ☐ No   ☐ Not sure

4. Would you say the following acts of property damage are a major problem, minor problem or not a problem at the attraction?

	Major Problem	Minor Problem	Not a Problem
Graffiti	☐	☐	☐
Carving on surfaces	☐	☐	☐
Litter	☐	☐	☐
Defacing statues/artefacts	☐	☐	☐
Breakage in toilets	☐	☐	☐
Breakage of public facilities	☐	☐	☐
Breakage of private property	☐	☐	☐
Damage to natural environment	☐	☐	☐

Specify other problems. Mark (A) for a major
problem or (B) for a minor problem   _____

5.   What do you feel is the single most important problem related to property damage by visitors in the attraction?

_____

6.   In your opinion what should be done to overcome the problem? (maximum 2 suggestions)

a. _____

b. _____

7.   Who do you think causes property damage at the attraction?

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
Local youths	☐	☐	☐	☐	☐
Local adults	☐	☐	☐	☐	☐
Visitors from other parts of Singapore	☐	☐	☐	☐	☐
International tourists	☐	☐	☐	☐	☐
Others, please Specify: _____	☐	☐	☐	☐	☐

8.   Compared to the current level of property damage at _____ attraction, do you feel the damage one year ago was:

☐ Much less   ☐ Little less   ☐ Worse   ☐ Not sure

9.   Compared to the current level of property damage, do you think the attraction site will be changed in terms of incidences of property damage, in the next 2 years?

☐ Much better   ☐ Little better   ☐ Worse   ☐ Not sure

10. What would be the 2 changes you want to make to manage property damage in _____ attraction?

a. _____

b. _____

11. Please indicate your opinion on the following statements.

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
It is rude to correct visitors with anti-social behaviours	☐	☐	☐	☐	☐
Correcting visitor behaviour reduces visitation to the attraction area	☐	☐	☐	☐	☐
It is not my responsibility to check correct vandalism in the attraction	☐	☐	☐	☐	☐
I take pride in being recognised as part of the attraction's community	☐	☐	☐	☐	☐

12. Please tell us how strongly you agree with the following statements about effects of property damage

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
Property damage affects my visitor experience at the attraction	☐	☐	☐	☐	☐
Property damage affects the number of visitors to the attraction?	☐	☐	☐	☐	☐
Only for business owners					
My Business is affected by property damage at the attraction?	☐	☐	☐	☐	☐
Only for residents					
My residential experience is affected by property damage at the attraction	☐	☐	☐	☐	☐

B. CURRENT ACTION AND ITS EFFECTIVENESS IN ADDRESSING PROPERTY DAMAGE

13. Please indicate your current involvement in initiatives to address property damage.

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
Personally intervene to check property damage	☐	☐	☐	☐	☐
Inform enforcing agents such as security guards and police	☐	☐	☐	☐	☐
Participate in social intervention (community watch group, campaign)	☐	☐	☐	☐	☐
Talk about the problem with other residents	☐	☐	☐	☐	☐
Do not feel responsible for the property damage	☐	☐	☐	☐	☐
Specify your other forms of involvements					

14. Do you feel your action is effective in reducing property damage in the attraction?

☐ Very effective   ☐ Effective   ☐ Not sure   ☐ Largely ineffective   ☐ Ineffective

15. Please indicate the local community's involvement in addressing property damage.

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
Public Relation campaign	☐	☐	☐	☐	☐
Form a task-force together with attraction management	☐	☐	☐	☐	☐
Organize public lecture or education program for residents	☐	☐	☐	☐	☐
Informal volunteer group to check property damage in attractions	☐	☐	☐	☐	☐
Specify other community involvements:					

16. Do you feel the community action is effective in reducing property damage in the attraction?

☐ Very effective   ☐ Effective   ☐ Not sure   ☐ Largely ineffective   ☐ Ineffective

17. Please tell us about the actions taken by the site management to address property damage.

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
Improve design of physical setting to provide guardianship	☐	☐	☐	☐	☐
Employ security personnel and staff to provide surveillance	☐	☐	☐	☐	☐
Deploy mechanical surveillance (Eg. CCTV and lighting)	☐	☐	☐	☐	☐
Provide adequate signage and information for visitors	☐	☐	☐	☐	☐
Routine maintenance of attraction amenities	☐	☐	☐	☐	☐
Protection of artefacts and property	☐	☐	☐	☐	☐

Specify other actions:

18. Do you feel the site management action is effective in reducing property damage in the attraction?

☐ Very effective   ☐ Effective   ☐ Not sure   ☐ Largely ineffective   ☐ Ineffective

19. Please tell us about the actions taken by the local council or the government to address property damage.

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
Improve design of physical setting to provide guardianship	☐	☐	☐	☐	☐
Employ enforcing agents such as tourism police and security guards	☐	☐	☐	☐	☐
Deploy mechanical surveillance (Eg. CCTV and lighting)	☐	☐	☐	☐	☐
Provide signage and information centres	☐	☐	☐	☐	☐
Routine maintenance of public facilities	☐	☐	☐	☐	☐
Improve land use around the attraction	☐	☐	☐	☐	☐

Specify other council/govt. actions:

20. Do you feel the government action is effective in reducing property damage in the attraction?

☐ Very effective   ☐ Effective   ☐ Not sure   ☐ Largely ineffective   ☐ Ineffective

21. Do you think there is joint action between the community, attraction management and the government to combat property damage?

☐ Always   ☐ Sometimes   ☐ Rarely   ☐ Never

22. If there is joint action, in your opinion is it effective in reducing property damage in the attraction?

☐ Very effective   ☐ Effective   ☐ Not sure   ☐ Largely ineffective   ☐ Ineffective

C. DESIRED LEVEL OF PERSONAL INVOLVEMNET

23. Please indicate how strongly you agree with the desired level of involvement in addressing property damage in attractions.

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
Be the champion of site management	☐	☐	☐	☐	☐
Assist in site management	☐	☐	☐	☐	☐
Contribute as a committee member on regular basis (review board, task force)	☐	☐	☐	☐	☐
Supplement decision making	☐	☐	☐	☐	☐
Participate in discussion and feedback sessions (eg. Citizen survey)	☐	☐	☐	☐	☐
Educational and support building	☐	☐	☐	☐	☐
Please list other forms. Mark (A) if you Strongly Agree or (B) if you Agree.					

24. Please tell us how strongly you agree with the following statements about involvement in addressing property damage

	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree
I want to participate in reducing vandalism	☐	☐	☐	☐	☐
I want the local council / government to assist me in managing vandalism	☐	☐	☐	☐	☐
I want to be involved in a community initiate to manage vandalism	☐	☐	☐	☐	☐
I feel I can help the site management to managing property damage	☐	☐	☐	☐	☐

D. DEMOGRAPHIC PROFILE

25. What is your gender?

☐ Male   ☐ Female

26. Please indicate your age group

☐ Under 22 years old   ☐ 22-35 years old   ☐ 36–50 years old

☐ 51–65 years old   ☐ Above 65 years old

27. Please indicate your annual income group.

☐ High income group   ☐ Middle income group   ☐ Low income group

Only for Household residents
28a. Please indicate your occupation type.

☐ Employed full-time   ☐ Employed part-time   ☐ Self employed

☐ Retired   ☐ Homemaker   ☐ Unemployed

Only for Businesses/ Organisations
28b. Please indicate the nature of your business operations

☐ Catering to tourist/visitor customers   ☐ Catering to local community customers

☐ Catering to visitors and local customers   ☐ Business not dependent on local customers

29. How long have you lived or operated a business in the current location?

☐ Less than one year   ☐ Between 1-3 years   ☐ Between 3-5 years   ☐ More than 5 years

THANK YOU VERY MUCH

Appendix F   STUDY THREE INSTRUMENT: INTERVIEW QUESTIONS AND PROMPTS

Interview Questions/Prompts – Singapore/Bangkok

1a. In your opinion, property damage at visitor attractions is a serious problem?
ในความคิดของคุณ, การทำลายทรัพย์สินในสถานที่ท่องเทียวเป็นปัญหาที่รุนแรงหรือไม่?

Yes / No เห็นด้วย/ไม่เห็นด้วย

1.b. Why?เพราะเหตุใด

_____

_____

_____

2. Would you consider the following acts as examples of property damage?
คุณคิดอย่างไรกับตัวอย่างดังต่อไปนี้ว่าเป็นการทำลายทรัพย์สินในสถานที่ท่องเที่ยวหรือไม่?

*Give sheet with pictures to mark yes or no.(*ถ้าคุณคิดว่าตัวอย่างต่อไปนี้เป็นการทำลายทรัพย์สิน ให้ตอบ<u>ใช่</u>
ถ้าคุณคิดว่าตัวอย่างต่อไปนี้ไม่เป็นการทำลายทรัพย์สินใ ห้ตอบ<u>ไม่ใช่</u>*)*

3. How did your organisation manage property damage in past?
หน่วยงานของคุณมีแนวปฏิบัติอย่างไรในการจัดการการทำลายทรัพย์สินในสถานที่ท่องเที่ยวที่ผ่านมาอย่างไร?

_____

_____

_____

_____

4. Did you organization use environment design principles such as surveillance, access control, target hardening etc. to manage property damage? If yes, give examples.

ที่ผ่านมาหน่วยงานของคุณได้มีการออกแบบ ระบบป้องกันการทำลายทรัพย์สินหรือไม่? ยกตัวอย่าง เช่น
กล้องตรวจจับผู้ที่ทำลายทรัพย์สินในสถานที่ท่องเที่ยว ระบบตรวจคนเข้าชม ถ้ามี กรุณายกตัวอย่าง

_____

_____

_____

5. Was your organization successful in reducing property damage?
ที่ผ่านมาหน่วยงานของคุณประสบความสำเร็จหรือไม่ในการจัดการเพื่อลดอัตราการทำลายทรัพย์สินในแหล่งท่องเที่ยว?

Yes / No (ใช่ หรือ ไม่)

6. How did your organization involve the local community in initiatives to address property damage?
ทีผ่านมาหน่วยงานของคุณได้มีการร่วมมือกับชุมชนอย่างไรในการตรวจตราการทำลายทรัพย์สินในสถานที่ท่องเที่ยว?

_____

_____

_____

7a. Was your organization successful in securing community participation?

ที่ผ่านมาหน่วยงานของคุณประสบความสำเร็จหรือไม่ในการร่วมมือการชุมชนเพื่อตรวจตรากาทำลายทรัพย์สิน?

Yes / No (ใช่หรือไม่?)

7b. Why? Wไม่ เพราะเหตุใด?

_____

_____

_____

8a. Are you aware of / involved in joint action to address property damage?

คุณมีความตระหนักถึงการให้ความร่วมมือในการตรวจตราการทำลายทรัพย์สินในถานที่ท่องเที่ยวหรือไม่?

Yes / No (มี หรือ ไม่มี)

8b. Please elaborate (กรุณาอธิบายหรือให้รายละเอียด)

_____

_____

_____

9a. Does your organisation have a financial budget to address property damage?

หน่วยงานของคุณมีงบประมาณหรือไม่ในการจัดการตรวจตราการทำลายทรัพย์สินในสถานที่ท่องเที่ยว?

Yes / No (มี หรือ ไม่มี)

9b. What is the % of the overall budget?

หน่วยงานคุณมีงบประมาณจำนวนกี่เปอร์เซ็นต์จากงบประมาณทั้งหมดในการจัดการตรวจตราการทำลายทรัพย์สินในสถานที่ท่องเที่ยว?

10a. What is the annual budget for repair and maintenance (% of the overall budget)

หน่วยงานคุณมีงบประมาณต่อปีจำนวนเท่าใดในการซ่อมบำรุงทรัพย์สินที่เสียหายในสถานที่ท่องเที่ยว (คิดเป็นเปอร์เซ็นต์จากงบประมาณทั้งหมด)

10b. The annual budget increase or decrease over the last 3-5 years?

ในเวลา 3-5 ปีที่ผ่านมางบประมาณทั้งหมดได้เพิ่มขึ้นหรือลดลง?

Increase จำนวนเท่าใดที่เพิ่มขึ้น? / Decrease จำนวนเท่าใดที่ลดลง?

11a. Are you aware of future initiatives to address property damage at visitor attractions?

คุณมีความตระหนักถึงการริเริ่มจัดการการตรวจตราการทำลายทรัพย์สินในสถานที่ท่องเที่ยวในอนาคตหรือไม่?

Yes / No (มีหรือไม่มี?)

11b. Please elaborate(กรุณาอธิบายหรือให้รายละเอียด)

_____

_____

_____

_____

12a. In your opinion, vandalism is a lesser problem compared to past?

ในความคิดเห็นของคุณการทำลายทรัพย์สินในสถานที่ท่องเที่ยวในปัจจุบันนับว่าเป็นปัญหาเล็กน้อยเมื่อเทียบกับการทำลายทรัพย์สินในสถานที่ท่องเที่ยวในที่ผ่านมาหรือไม่?

Yes / No (ใช่หรือไม่?)

12b. Why do you say so?

เพราะเหตุใดคุณถึงมีความเห็นเช่นนั้น?

_____

_____

_____

_____

13a. In your opinion, vandalism will be lesser problem in future?

ในความคิดเห็นของคุณการทำลายทรัพย์สินในสถานที่ท่องเที่ยวในอนาคตจะลดลงหรือไม่?

Yes / No(ลดลงหรือไม่ลดลง?)

13b. Why do you say so?

เพราะเหตุใดคุณถึงมีความเห็นเช่นนั้น?

_____

_____

_____

_____

14. Would you like to make additional comments?

คุณมีความคิดเห็นเพิ่มเติมอย่างไรเกี่ยวกับการทำลายทรัพย์สินในแหล่งท่องเที่ยว?

_____

_____

_____

_____

THANK YOU

ขอบคุณมากครับ

Question 2: Types of Property Damage at Visitor Attractions - **Singapore**

Graffiti – Yes / No	Carving on surface – Yes / No
Litter – Yes / No	Defacing artifact – Yes / No
Damage to public toilet – Yes / No	Damage of public property – Yes / No
Damage to private property – Yes / No	Damage to natural environment – Yes / No

Question 2: Types of Property Damage at Visitor Attractions - **Bangkok**

Graffiti(การขีดเขียน) – Yesใช่ / Noไม่ใช่	Carving on surfaceการแกะสลักบนพื้นไม้ – Yesใช่ / Noไม่
Litter การทิ้งขยะ– Yesใช่ / Noไม่ใช่	Defacing artifact การทำลายพื้นผิวพระพุทธรูป – Yesใช่ / Noไม่ใช่
Damage to public toilet การทำลายห้องน้ำสาธารณะ – Yesใช่ / Noไม่ใช้	Damage to public property การทำลายโทรศัพท์สาธารณะ – Yesใช่ / Noไม่ใช่
Damage to private property การขีดเขียนในทรัพย์สินส่วนตัวของคนอื่น – Yesใช่ / Noไม่ใช่	Damage to natural environment การทำลายสิ่งแวดล้อม – Yesใช่ / Noไม่ใช่

G1. Current personal involvement.

In reporting their current personal involvement respondents chose "inform enforcing agents" from the list of five tpes of involvement. The mean for this most popular choice was 3.78. Other types of involvements received very similar ratings with mean between 3.3 and 3.6 and similar standard deviation (.83<SD<.94). The response "*do not feel the responsibility*" was notably different (M=2.96, SD=1.08), suggesting separate forces and considerations being made by the community. The respondents in in Singapore felt that their actions were effective in reducing property damage (n=156, M=3.36, SD=.85). In comparison, individuals in the Bangkok sample felt more involved personally in most forms of initiatives with an average rating between M=3.64 and M=4.22. The lower standard deviation range (.79<SD<.94) also indicated greater homogeneity in responses. Interestingly, the *"do not feel the responsibility"* option was least popular and most diverse (M=2.97, SD=1.33) as in Singapore's case.

G2. Local community involvement.

For the Singapore data set, the four forms of involvement listed in Table 4.13 received very similar responses with the means ranging between 3.8 and 3.88 with the standard deviation between .78 and .86. Similar results were evident in Table 4.14 for Bangkok with higher response rates (4.08<M<4.29) and a narrower range of SD scores (.72<SD<.82). The results for effectiveness of the community action recorded higher effectiveness (M=3.64, SD=.82) in Thailand when compared with Singapore (M=3.55, SD=.91).

G3. Site management involvement.

In relation to involvement of attraction management, the respondents were queried about actions of site management in addressing property damage at their site. Respondents at both locations identified management involvement in "providing signage and information" to visitors as the most common action. This result was perhaps predictable as signage and information boards are widely used by attraction management (Bramwell & Lane, 2011; Morgan, Lugosi, & Ritchie, 2010; Moscardo, Ballantyne, & Hughes, 2007). Arguably, higher ratings for Thailand dataset (4.19<M<4.38) suggest higher presence and involvement of attraction

management in Bangkok in comparison to Singapore (3.94<M<4.09). Though the effectiveness of management actions in Singapore (M=3.71, SD=.77) is higher than the results for Thailand (M=3.6, SD=.81), pointing at efficient implementation of management practices and policies ((Morgan et al., 2010).

G4. Local authorities/government involvement.

Mechanical surveillance (M=3.94) and guardianship (M=3.96) emerged as the two most common actions of the local authorities in Singapore. By contrast, routine maintenance (M=4.26) and improving land use (M=4.27) were regarded as the two most popular government involvements in Bangkok. The comparative difference in scores can be attributed to the contrast in level of economic development at the two locations. In the developed country economic setting of Singapore, the regulatory bodies focus on protecting the existing infrastructure while the authorities in developing economy of Thailand, target improvements and repair of facilities and infrastructure. The effectiveness (M=3.74) of Singapore's local government involvement is substantially higher when compared to effectiveness (M=3.27) of it is counterparts involvement in Thailand. A higher standard deviation (SD=1.01) in Bangkok suggests a disagreement within the community regarding effectiveness of government action in addressing property damage at visitor attraction.

G5. Joint action between stakeholders and its effectiveness.

In terms of the perceived presence of joint action between the above mentioned stakeholders, namely, the individual, community, site management and the government, it was observed that majority of respondents found lower levels of joint action. The respondents in Thailand were consistent in their lower ratings (M=2.87, SD=.716) for presence of joint action. Respondents in Singapore rated joint action lower than involvement of individual stakeholders (M=3.07, SD=.833). By contrast respondents in both locations felt that joint action was effective in addressing property damage at visitor attractions (Singapore: n=164, M=3.66; Bangkok: n=222, M=3.75). The results of the survey are consistent with the findings of the physical audit conducted and

discussed in chapter 3 earlier in this thesis. The two studies confirm the consistent lack of joint action, more so in Bangkok, in addressing property damage at attractions.

Table G.1: Current Action and its Effectiveness in Addressing Property Damage - Bangkok

Involvement type and effectiveness		SD		D		NS		A		SA		Mean	SD	N
		N	%	N	%	N	%	N	%	N	%			
Current Personal Involvement	Personally Intervene	7	3	19	9	54	24	108	49	33	15	3.64	0.946	221
	Inform Enforcing Agents	0	0	7	3	29	13	93	42	92	42	4.22	0.792	221
	Participate in Social Interventions	0	0	9	4	41	19	107	48	65	29	4.03	0.801	222
	Talk to other residents	1	0	11	5	38	17	106	48	66	30	4.01	0.843	222
	Do not feel the responsibility	40	19	43	20	46	21	55	26	31	14	2.97	1.336	215
Effectiveness of Personal Action	Personal Action Effective in reducing property damage	7	3	15	8	89	44	76	37	17	8	3.4	0.873	204
Local Community Involvement	PR Campaign	1	0	3	1	19	9	104	48	91	42	4.29	0.721	218
	Form a Task Force	2	1	0	0	27	12	97	44	95	43	4.28	0.747	221
	Public Lecture and Education	1	0	2	1	25	11	102	46	92	42	4.27	0.73	222
	Volunteering	2	1	6	3	37	17	105	47	72	32	4.08	0.823	222
Effectiveness of Action	Community Action Effective	1	0	16	8	71	33	95	45	30	14	3.64	0.832	213
Site Management Involvement	Provide guardianship	0	0	2	1	28	13	118	53	75	33	4.19	0.68	223
	Human surveillance	0	0	5	2	30	13	94	42	95	43	4.25	0.768	224
	Mechanical surveillance	1	0	5	2	26	12	96	43	96	43	4.25	0.782	224
	Signage and Information	0	0	1	0	20	9	95	43	108	48	4.38	0.666	224
	Routine maintenance	1	0	1	0	21	10	91	41	109	49	4.37	0.711	223
	Protection of property	0	0	1	0	29	13	84	38	107	49	4.34	0.719	221
Effectiveness of Action	Site Management Action Effective	6	3	6	3	79	36	106	48	22	10	3.6	0.814	219
Local Authority Involvement	Provide guardianship	0	0	3	1	35	16	120	54	64	29	4.1	0.701	222
	Deploy enforcement agents	1	0	3	1	31	14	101	46	84	39	4.2	0.762	220
	Mechanical Surveillance	1	0	8	4	27	12	94	43	91	41	4.2	0.825	221
	Signage and Information	0	0	7	3	28	13	100	45	86	39	4.2	0.778	221
	Routine Maintenance	2	1	2	1	26	12	98	44	93	42	4.26	0.77	221
	Improve land use	0	0	4	2	26	12	97	44	93	42	4.27	0.738	220
Effectiveness of Action	Local Authority Action Effective	16	7	23	10	89	40	74	33	21	10	3.27	1.014	223

SD= Strongly Disagree, D=Disagree, NS=Not Sure, A=Agree, SA= Strongly Agree

Table G.2 Current Action and its Effectiveness in Addressing Property Damage - Singapore

Involvement type and effectiveness		SD		D		NS		A		SA		Mean	SD	N
		N	%	N	%	N	%	N	%	N	%			
Current Personal Involvement	Personally Intervene	3	2	31	19	59	36	55	33	16	10	3.3	0.949	164
	Inform Enforcing Agents	0	0	14	9	36	22	85	52	28	17	3.78	0.832	163
	Participate in Social Interventions	0	0	20	12	50	31	67	42	25	15	3.6	0.895	162
	Talk to other residents	2	1	18	11	44	27	76	47	22	14	3.6	0.901	162
	Do not feel the responsibility	13	8	44	28	51	32	37	24	13	8	2.96	1.085	158
Effectiveness of Personal Action	Personal Action Effective in reducing property damage	6	4	12	8	67	43	62	39	9	6	3.36	0.857	156
Local Community Involvement	PR Campaign	1	1	9	6	36	22	77	48	37	23	3.88	0.852	160
	Form a Task Force	0	0	7	4	45	28	##	49	31	19	3.83	0.782	163
	Public Lecture and Education	2	1	7	4	43	27	75	46	36	22	3.83	0.863	163
	Volunteering	2	1	8	5	43	27	77	47	32	20	3.8	0.857	162
Effectiveness of Action	Community Action Effective	4	3	13	8	49	32	66	44	19	13	3.55	0.914	151
Site Management Involvement	Provide guardianship	1	1	5	3	34	21	84	52	38	23	3.94	0.79	162
	Human surveillance	1	1	7	4	20	12	91	56	43	27	4.04	0.787	162
	Mechanical surveillance	1	1	11	7	26	16	82	50	42	26	3.94	0.865	162
	Signage and Information	0	0	6	4	22	13	86	53	48	30	4.09	0.759	162
	Routine maintenance	0	0	5	3	26	16	78	48	53	33	4.1	0.777	162
	Protection of property	1	1	5	3	21	14	82	55	39	27	4.03	0.777	148
Effectiveness of Action	Site Management Action Effective	0	0	9	6	45	30	76	51	20	13	3.71	0.771	150
Local Authority Involvement	Provide guardianship	0	0	5	3	35	22	84	51	39	24	3.96	0.761	163
	Deploy enforcement agents	2	1	10	6	25	15	92	57	34	21	3.9	0.843	163
	Mechanical Surveillance	1	1	11	7	25	15	85	52	41	25	3.94	0.855	163
	Signage and Information	2	1	7	4	34	21	85	52	35	22	3.88	0.834	163
	Routine Maintenance	1	1	5	3	39	24	83	51	35	21	3.9	0.79	163
	Improve land use	1	1	3	2	43	27	78	50	32	20	3.87	0.744	157
Effectiveness of Action	Local Authority Action Effective	2	1	10	6	47	29	74	46	30	18	3.74	0.874	163

SD= Strongly Disagree, D=Disagree, NS=Not Sure, A=Agree, SA= Strongly Agree

Appendix H   HUMAN RESEARCH ETHICS APPROVAL

This administrative form
has been removed