THE RELATIONSHIP BETWEEN THE MICROCLIMATE AND THE LANDSCAPE DESIGN OF THEME PARK

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A dissertation submitted in partial fulfilment of the requirements for the award of the degree of Master of Science (Tourism Planning)

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Dedicate this dissertation, first and special to my beloved husband Amir Bin Hashim who always accompany, encouraging, and helping me with full of love.
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In the name of Allah, Most Gracious, Most Merciful.

Alhamdulillah, thanks to Almighty Allah for giving me the strength and willpower to complete this thesis. Without His blessings of good health, time and financial sources, this thesis could not have been completed. This thesis will help me to fulfil the requirement for the Master of Science in Tourism Planning.

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ABSTRACT

This study aims to help the development of the theme park through the understanding of the relationship between local climate and landscape design via the experiences and views from tourists which can be used as a medium to create the value of satisfaction and comfort during their visit to the theme park. Microclimate was defined as the local climate of one area in which to engage in any development or construction, knowledge and research on the climate of the area should be studied in advance so the developments can be aligned and considered with the local climate. Microclimate responds to every development in the surrounding including landscape construction. Design and use of the landscape plays an important role, especially for a theme park where the landscape use as a medium of intermediary in between of one area with local climate in order to help visitors adapt to local climate through landscape design. To produce the landscape design of theme park that considering the local climate, the understanding towards the tourist's experience and perspectives are very important. Therefore, a quantitative analysis study was conducted in a Legoland Malaysia theme park to study the typology of tourists, tourist's experience on the use of landscape, tourist's perspective on the overall landscape design with the local climate and lastly the overall assessment of the level of satisfaction of tourists during their stay in the theme park. The outcome of the research found some landscape design constraints towards the local climate has been identified and suggestions for future research were discussed and proposed. The understanding towards this study can help in creating a design that is more accurate and sensitive to the local climate in order to provide maximum comfort and satisfaction to the theme park's user, either domestic tourist or international tourists.
ABSTRAK

Kajian ini bertujuan untuk membantu pembangunan taman tema melalui pemahaman terhadap hubung kait diantara iklim setempat dengan rekabentuk landskap melalui pengalaman dan pandangan pengunjung dimana ia boleh dijadikan sebagai satu medium dalam mewujudkan nilai kepuasan dan keselesaan sepanjang berada dalam taman tema. Microclimate telah ditakrifkan sebagai iklim setempat bagi sesuatu kawasan dimana sebelum menjalankan sebarang pembangunan atau pembinaan pengetahuan dan kajian terhadap iklim bagi kawasan tersebut perluah dikaji dahulu supaya pembangunan yang dijalankan dapat diselaraskan dengan iklim. Microclimate bertindak balas terhadap setiap pembangunan di kawasan sekitarnya termasuklah pembinaan landskap. Rekabentuk dan penggunaan landskap memainkan peranan penting terutamanya bagi taman tema dimana landskap dijadikan satu medium perantara bagi penggunaan sesuatu kawasan dengan iklim setempat dalam membantu pengunjung menyesuaikan diri dengan iklim melalui rekabentuk yang mengambil berat keadaan iklim setempat. Untuk menghasilkan rekabentuk landskap taman tema yang mengambil kira iklim setempat, pemahaman terhadap pengalaman dan pandangan pelancong sangat penting. Oleh itu suatu kajian analisis kuantitatif telah dijalankan di taman tema Legoland Malaysia bagi mengkaji tipologi pelancong yang melawat taman tema ini, pengalaman pelancong terhadap penggunaan landskap, perspektif pelancong terhadap keseluruhan reka bentuk landskap dengan iklim setempat dan akhir sekali ialah penilaian keseluruhan terhadap tahap kepuasan pelancong sepanjang berada dalam taman tema. Hasil daripada kajian yang dijalankan, beberapa kekangan rekabentuk landskap terhadap iklim telah dikenalpasti dan cadangan untuk kajian di masa hadapan telah dibincangkan dan dicadangkan. Pemahaman yang mendalam terhadap kajian ini dapat membantu dalam menghasilkan satu rekaan yang lebih jitu dan sensitive terhadap iklim setempat untuk memberikan keselesaan dan kepuasan yang maksima kepada pengguna taman tema sama ada pelancong tempatan mahupun antarabangsa.
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CHAPTER 1

INTRODUCTION

1.1 Background of Problem

Describe Tourism industry in Malaysia tries to using a variety of attraction in order to increase the attractiveness of tourist destinations that can be competitive to other places. One of the efforts is by creating the theme park where providing entertainment attraction and other events in a location for enjoyment to cater children, teenagers and adults. This theme park also commonly offers a fantasy atmosphere that communicated through human senses regarding to visual, taste, listen, smell, and touch where normally are based on one or more specific or central themes which grew out of the pleasure landscape design that started popular in the beginning of industrial revolution. The landscape design of theme park can give a huge impact towards the visitor experience and perspective. Because consumers interact with the service environment and personnel during the consumption experience, understanding consumers’ affective responses becomes critical (Yang and Peterson, 2004). Such understanding is paramount in tourism services, with important emotional involvement regarding the tourist experience (Bigne’ et.al, 2005). Focusing on tourists’ subjective experience, the need to integrate cognitive and emotional concepts in order to explain tourist satisfaction and behavioural intentions is highlighted (Bigne’ et.al, 2005). In fact, one of the objectives of marketing and applied social sciences is to develop knowledge to influence behaviour. Early studies have focused on understanding the bases of action from a theoretical standpoint.
Therefore, landscape design has a significant relation with tourist experience and satisfaction that related to conformability of the park. Landscape design is referring to hard landscape and soft landscape elements that influenced by the climate and geography aspects. In addition, landscape design of theme park should able to project the overall theme that can give pleasurable and excitement feelings to tourists as well as visitors. Theme parks are considered a form of leisure activity because they provide an opportunity for entertainment during an individual’s discretionary free time (Milman, 2007). According to Milman (2007) the popularity of theme park and attractions will continue to grow, as they are increasingly associated with new vacation experiences. The research purpose is to identify the relationship between the microclimate and the landscape design of theme park by understanding the perspective and experience of tourists in creating the effective design that could enhance pleasurable feeling. Thus, it can improve the comfort, safety and attractiveness of the landscape design for theme park by fulfil the tourist needs and wants accordingly towards the climate and weather.

1.2 Problem Statement

The evolution of theme park turned the landscape design to the themed character that supposedly generates pleasurable experiences through different environment which can enhance not only the beauty aspects but also the comfortable feelings. However, what actually the tourist and visitor experiences during their visit to the theme park recently are being questioned. Are they really satisfied with the landscape design that being offered in the theme park? Are the landscape designs of Theme considering the microclimate of the place?

In context of landscape design, nowadays theme park seems had a problem in considering the local climate as a guideline for planning and design stage that caused uncomfortable and disappointed feelings that may lead to decline of tourist attraction. Theme park design seems that no integration between landscape design, climate and tourists where these three elements should be as one of the significant aspect in developing a successful theme park. Furthermore, theme park nowadays
always forgot to bring the tourist’s needs and wants into a designing the overall landscape of theme park that can make it is more closely to the tourists. Therefore, analysing the microclimate of the place by the understanding the tourists experience and perspective can help creating the effective landscape design that can give tourists pleasurable environment and experience.

1.3 Research Objectives

In order to achieve the purpose of study, it must be supported through these four objectives which are:

1. To ensure whether the microclimate taken into account in landscape design of theme park
2. To determine whether the microclimate had influences to the landscape design and the tourists
3. To study the perspectives and experiences of tourists towards the landscape design of theme park with the local climate
4. To review the effectiveness of landscape design of theme park towards the microclimate

1.4 Research Questions

1. Did microclimate taken into account in designing landscape of theme park?
2. Did microclimate influence the landscape design of theme park and the tourists?
3. What are the perspectives and experiences of tourists towards the landscape design of theme park with the local climate?
4. How far the effectiveness of landscape designs of theme park with consideration of microclimate?

1.5 Scope of research

This research, the scoped is focused on four most important areas that will be discussed in detail. All the four major areas are described briefly under several headings below.

1.5.1 Literature review

The literature review is needed as the initial study for the basic understanding of the definition, description, experience and perspective that involved in this entire study gathers from journals, books, magazines, thesis, articles and also internet sources. It involved the understanding of landscape design of theme park, microclimate and tourist’s experience and perspective. Detail discussions were in Chapter 2.

1.5.2 Understanding of microclimate

Throughout the description and information gathered this assessment is identifying the microclimate that supported by the tourist perspective based on the experience. It is also analyse the influence of the microclimate towards the design in tourism destination area.
1.5.3 Understanding landscape design of theme park

The description about landscape design in theme park that supported by the tourist perspective based on the experience. It is also analyse the influence of the landscape towards the design of theme park in tourism destination area.

1.5.4 Observing landscape design of theme park with microclimate

Analysing the landscape design of theme park with consideration of microclimate that supported by the tourist experience To see the effectiveness of landscape design that referring to the hard landscape and soft landscape aspects of the Theme Park planning and design to improve and fulfil tourist needs.

1.5.5 Best practice study on Universal Studio Singapore

Review the landscape design of Universal Studio Singapore to have a better and wide view regarding to the consideration of microclimate in landscape design of theme park that sharing the same climatic condition with Legoland Malaysia as a case study for this research.

1.6 Study Approach

There were four stages as the parameter for the study approaches. The following are the four stages that covered in this study
1.6.1 Stage 1- Preliminary Stages

As for the preliminary stage, the literature review of microclimate, landscape design of theme park and best practice study will be discussed in detail. The information and understanding on the topic were gathered via literature review from books, journals, and publications (secondary data collection). A research framework was also initiated at this stage to ensure the study can be done systematically.

1.6.2 Stage 2- Data Collection

The data collection involved different parameters which include the interview, personal observation and online surveys.

1.6.3 Stage 3- Analysis and Synthesis

This stage involved the analysis on the data collected during the second stage. The analysis was done using IBM SPSS Statistics 16 (frequencies and cross tabulation) to find the relationship and effectiveness between the microclimate and the landscape design in theme park. Some of the descriptive of analysis is on the percentage and frequency of the demographics (tourist profile), tourist’s experience and perspective.

1.6.4 Stage 4- Discussion, Conclusion and Recommendation

This stage will be the discussion, conclusion and recommendation based on the analysis done on the third stage that can be suggested in creating a better landscape design of theme park.
1.7 Research Method

Quantitative research method was used in this study with research instruments of online survey (direct method), personal observation and interview.

1.7.1 Quantitative research method

In order to measure the effectiveness of landscape design of theme park towards the microclimate, a quantitative approach was used in this research and were based on four part which are tourists profile, tourists experience, tourists perspective and tourists satisfaction. A quantitative approach is known to be much appropriate as it would provide both valid and reliable results (Ryan, 1995) and the data gathered can be faster analysed statistically using readily available computer software.

1.7.2 Determining the sample size

Based from 2013 Legoland Malaysia tourists’ data that can be referred from the article of Bernama Media (2013) where mentioned that the number of tourist estimated about 1.2 million. However, the Theme Park not allows any survey conducted on tourists who come in order to avoid any interference. Therefore, this survey was conducted by using online survey which is connected directly to the fans page, facebook, and blogs via e-mail. The sample size is based on the number of fans from the internet which is estimated to be around 11 593 fans who already go and become fans of 2013 Legoland Malaysia. Therefore, after the calculation of the sample size the total number of respondents is shown in table below is 200 respondents where 160 from domestic tourists and 40 from international tourist (Refer Appendix A on the calculation).
1.7.3 Survey instrument

1.7.3.1 Online survey

The survey form was designed with three section include

1. Section A – Tourist profile
2. Section B – Tourist experience
3. Section C – Tourist perspective

For the first section, the question was build based on the tourist profile that referred to tourist’s gender, age and nationality. This section is a big scope to analyse the typology of tourist profile that visit the theme park.

The second section was created accordingly to the tourist’s experience based on the level of safety, comfort, themes and design of landscape that being used by tourists during their visit to the theme park. This section is important to know what tourists feel to every landscape design in order to understand their needs and wants.

The last section was built to know and understand the tourist's perspective towards the landscape design with the local climate. This section derived from the experience of tourists during their visit and uses of landscape in a theme park.

1.8 Study Area

The study area selected is Legoland Malaysia that located in Nusajaya, Johor Darul Takzim which has an area of 76 acres with 40 interactive rides, shows and attractions. The reasons to select this theme park are because it was the first Legoland in Asia which have significant differences in climate compared to Legoland in Europe. Other than that, based from the comments from the tourists over
the world, Legoland Malaysia has issue regarding to the local climate that seems give unpleasant feelings to the tourists. Thus, this study area is appropriate for this research where can see how climate will react with the landscape that can have a significant impact on the comfort and satisfaction of tourists (Refer to Chapter 3 on the detailed description of the study area).

1.9 Significance of Study

This study is very important in helping to improve the Theme Park industry through understanding on the comfort and satisfaction of tourists on the landscaping that were provided. Exposures indicated in this study emphasize three main aspects which is a better design of landscape with regard to the local climate. The second is to understanding the needs and wants of tourists through the survey on the tourist's experience and perspective to produce a better and comfortable design. Third is to identify local climatic conditions in more detail based on the perspective of domestic and international tourists. Therefore, it is essential to investigate the relationship between local climate and landscape design in the theme park to help design a landscape of theme parks that more sensitive to environmental conditions while enhancing the balance between the local climate and the tourists.
1.10 Conclusion

In summary, the issues, objectives, scope and significance of the study that have been debated earlier could be improved the landscape design of theme park by understanding and analyse the local climate to become more pleasurable and friendly to the users. In addition, with the information and data collected, it would help to achieve the purpose and objectives of this study. Thus, the result of this study could help designing a comfortable landscape for the tourists even though be in different climates and indirectly improve the quality of tourism development of the theme parks.
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