Beach Morphology On Coastal Tourism Destination: The Case Of Pantai Chenang, Langkawi

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A B S T R A C T

This study analyses the impact of costal tourism on the beach morphology of Pantai Chenang, Langkawi between 1966 and 2012. The Smith's Beach Resort Model (BRM) applied in this study and three elements was chosen; physical, environments and social. The results show that the beach at Pantai Chenang is now in early stage 6 of morphological change in the vicinity of inland hotel construction and increased residential dwellings. Based on this study, it can be concluded that Pantai Chenang BRM does not follow the traditional BRM. While Smith’s BRM includes the construction of second homes, no such second homes have been observed in the Pantai Chenang BRM. The only clear construction development has been the improvement of tourism-relates facilities.

Key words: Coastal resorts, beach morphology, beach resort model, Pantai Chenang

INTRODUCTION

Morphology is a term widely associated with geography, but it is increasingly being used in the fields of architecture and urban planning [1].

Morphology is defined as the study of the physical landscape; including how structures function, the flexibility of structural features, the principal functions of a given structure, and how structures, functions and features change over time [2]. However, few efforts have been made to apply the approaches and models of morphology to resort development and coastal tourism planning [3]. Meanwhile, beach resorts are geographic areas offering a variety of accommodation facilities, services and activities that are orientated toward seaside recreation for the use and enjoyment of visitors [4].

Due to the changes of coastal areas by tourism development, researchers around the world have employed various models to understand the morphological patterns of coastal resort. One of the model is the beach resort model (BRM), an urbanisation model for coastal locations that often begins with limited tourism facilities and includes the evolution of beach resorts in a natural context through the expansion of accommodation and other recreational functions [5].

For example, in the earliest BRM, a residential housing, tourist accommodation, and “central honky-tonk” zone (i.e. a district with a high density of cheap entertainment facilities) have been identified as major components [6]. Nevertheless, the earliest BRM failed to incorporates the physical, environmental and social characteristics of a resort. Therefore, the eight stages of BRM describing the evolution of beach resort from natural beaches to urban beaches [5]. These eight stages of the BRM are predevelopment datum, explorative...
tourism, first hotel, strip development pattern, business centre established, hotels away from beach, second road, and lastly separation of CBD and RBD. All eight stages of BRM have been applied for further analysis to identify the current stage of land use changes brought by tourism development in Pantai Chenang, Langkawi Islands.

2.0 Research Approach:

The rapid rise in the demand for coastal tourism has resulted in a rapid increase in the number of coastal resort developments worldwide. As a result, the morphological and structural patterns of coastal resort development changes patterns have occurred. One of the objectives of this study is to describe the model of beach resort development in Pantai Chenang, Langkawi, and its evolution since 1966. In this study, the Pantai Chenang BRM will be developed based on the evaluative research framework using the adaptation of Smith’s BRM and existing literature (Figure 1). We chose Smith’s BRM because the resort evolution model succinctly describes how and why a resort evolves. Other than that, this resort provides the implication of the development process and it is more acceptable since it is based on Asian Pacific experiences and focuses on spatial dimension specific to resorts.

![Pantai Chenang BRM](image)

Fig. 1: Research Framework for Pantai Chenang Beach Resort Model

RESULTS AND DISCUSSION

From this study, it can be concluded that two types of coastal tourism have occurred in Langkawi Island. First type was small-scale seaside hotels run by the families with direct benefits to its family member. The growing of tourism demand in Pantai Chenang area, later than cause the other type of coastal tourism occurred known as modern resort tourism. The small-scale tourism offered low-cost accommodation to the tourist but later on, was replaced by properly planned resorts of various types and sizes which by far the most important and prevalent in coastal tourism development in Pantai Chenang, Langkawi.

Figure 2 showed the land use land cover of the expansion of build-up area, recreational area, and facilities/utilities area between 1966 and 2012, which directly involve in coastal tourism development in Pantai Chenang. Furthermore, Table 1 provides an overview of the morphological changes at Pantai Chenang per the physical, environmental and social changes outlined in the eight stages of the BRM. The physical change secondary to tourist development is readily apparent since development began in 1988.

Langkawi was promoted as a tourism destination starting in 1980 and become popular in 1987 when Langkawi was designated a free-duty zone.
Fig. 2: Land use map of study site between 1966 and 2012
### Table 1: Beach resort morphological changes at Pantai Chenang, Langkawi

<table>
<thead>
<tr>
<th>Evolution stages</th>
<th>Elements</th>
<th>Physical</th>
<th>Environmental</th>
<th>Social</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1</td>
<td>Pre-Tourism</td>
<td>An existing of unpaved road which connects the village to beach area since there is agriculture activities going. No development or tourism activity in the vicinity.</td>
<td>Beach area cover with natural landscape and only small area with agriculture activity.</td>
<td>Residential area located further to the centre of the island and distributed in small patches.</td>
</tr>
<tr>
<td>Stage 2</td>
<td>Construction of second homes</td>
<td>The road was built along the Pantai Tengah and Pantai Chenang running parallel with 0.5 km from beach area</td>
<td>There is landscape change at the beach area. Clearance of the natural landscape at the beach. First low budget tourism accommodation</td>
<td>Tourists are introduced to the Pantai Chenang area when Langkawi was announced as tourism destination in 1980. Residential built up increased in area and become nearer to the beach area.</td>
</tr>
<tr>
<td>Stage 3</td>
<td>Construction of First Hotel</td>
<td>A new road extension with the existing road to the southern Pantai Tengah, lead to the hotel and marina site. First hotel open; Meritus Pelangi Beach Resort &amp; Spa in 16 March 1989.</td>
<td>More land conversion at the beachfront for tourism development. More natural habitat loss. Transitional land cover observed.</td>
<td>Tourist arrivals increased when Langkawi was introduced as free duty island in 1987. Local’s people working with tourism relate industries that provide more income.</td>
</tr>
<tr>
<td>Stage 4</td>
<td>Establishment of a resort</td>
<td>More hotels, resorts, motels and guest house increase in number with various rating (5 star to low budget). A small shopping mall opened in August 1995 known as Zone Shopping Paradise Opening of Underwater World Langkawi on 26 August 1995.</td>
<td>Major reclamation process for Langkawi International Airport route which then launched in 1995.</td>
<td>There was an increase of tourist especially international tourist since the launching Langkawi International Airport in 1955. Increase in jobs tourism relate offers to local people</td>
</tr>
<tr>
<td>Stage 5</td>
<td>Establishment of a Business Area</td>
<td>Almost all the beachfront area at Pantai Chenang is occupy by hotels, motels, guest house and small business.</td>
<td>The rise of tourism activity at Pantai Chenang has a direct increase in vehicles.</td>
<td>The services and goods provided started to reflect the needs of the tourists, which showed a cultural shift in Pantai Chenang.</td>
</tr>
<tr>
<td>Stage 6</td>
<td>Construction of Inland Hotels</td>
<td>The development of hotels further inland since there is no beachfront area available for development, such as Aseania Resort Langkawi and Fave Hotel.</td>
<td>N/A</td>
<td>Increase in residential dwelling where small patches area become large patches</td>
</tr>
<tr>
<td>Stage 7</td>
<td>Transformation of Tourist Culture</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Stage 8</td>
<td>Establishment Of Urban Resort</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

(Note: N/A – Not Applicable to the current stage)

According to the Langkawi Development Authority (LADA) development policy, urban development is limited to the main town centres of Kuah, Padang Matsirat and Padang Lalang; while tourism development is focused around Datai Bay, Tanjung Rhu, Burau Bay, Pantai Tengah and Pantai Chenang [7].

**Conclusion:**

The morphological changes of Pantai Chenang beach resort are similar those seen in small island settings. Construction of tourism facilities began as Pantai Chenang was announced as coastal tourism destination in early 1980 and then when Langkawi Island was introduced as free duty island in 1987, the tourism development facilities increased rapidly. Tourism facilities were developed from the coastal area and extended inland.

The completion of the first hotel triggered a tourism boom in the form of a planned resort development that created a significant number of job opportunities in response to the tourism development. In spite of similarities, it appears that Pantai Chenang tourism does not fully concur with the Beach Resort Model (BRM). Second home construction did not occur in stage 2 and there is no business centre, only a number of small shops along the road.

Another noticeable fact is that the components of change outlined in the model do not occur at the same stage in reality. There have been disparities of some elements for this case study. The BRM cannot predict the changes that will occur to Pantai Chenang area at a given point in time.

The evolutionary model does not have general applicability as stated in the existing literature; thus, it cannot explain the processes that an individual coastal resort experience. One of the major reasons for the different of the BRM is the influence of the lack of master plan undertaken in the early stage of tourism.
development. The master plan only applied after the construction and commercial success of the first hotel on the island.

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REFERENCES