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## Developing Hawaii Tourism Dashboard

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## **Developing Hawaii Tourism Dashboard**

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## INTRODUCTION

How can a destination's health of tourism be described in a simple but comprehensive way? This question concerns not only the tourism industry but also local residents who are employed in the industry and live with the impacts from tourism in their daily lives. However, it is challenging to separate the impacts solely from tourism, because factors of various aspects (i.e., social/cultural, economic, environmental impacts) are intricately associated. For example, do the positive economic indicators such as the increasing number of visitors and occupancy rates at accommodations translate into residents' higher disposable income, better quality of life, more positive sentiments about the impacts of tourism and more support for tourism?

In Hawaii, where tourism accounts for almost a quarter of gross state product (Department of Business, Economic Development and Tourism, 2004), residents' participation, understanding and support for tourism is critical. Hawaii tourism has enjoyed a boom in 2004 and 2005, after a few years of a downturn. The number of visitors increased from 6.92 million in 2004 to 7.4 million in 2005, total visitors' expenditures increased from \$10.7 million in 2004 to \$11.9 million in 2005. The performance of the hotel sector has improved from 2004 to 2005 as well: average occupancy rate of 77.7% and 81.2%; average RevPAR \$118.2 and \$135.5, respectively. The importance of tourism to Hawaii's economy is widely recognized among residents. According to recent studies of "Resident Sentiments on Tourism in Hawaii," the majority of residents of Hawaii (approximately 74%) agreed that tourism has brought more benefits than problems to the State (Hawaii Tourism Authority, 2005, 2006). Further, more residents in 2006 (51%) than 2005 (36%) thought that more tourism jobs are needed. Nonetheless, residents had negative sentiments on the impacts of tourism and expressed concerns about the growth limits. They felt that the economy is too dependent on tourism (78% in 2006, 79% in 2005) and that their islands are being run for tourists at the expense of local people (62% in 2006, 56% in 2005). Many of them were also against more hotel constructions (76% in 2006, 73% in 2005). These negative sentiments are somewhat ironic, considering that more residents than last year felt that more tourism jobs are needed. The reported negative impacts of tourism were on traffic (77%), cost of housing (56%) and crime rate (56%) (Hawaii Tourism Authority, 2005). However, is the boom in tourism the actual cause of the 103 percent price increase from 2000 to 2005 in single family homes of Oahu (Honolulu Board of Realtors, 2006)? Beyond the conventional belief that tourism is the main contributor for price increases, more careful examination seems to be needed as to which prices.

This phenomenon that Hawaii residents' negative sentiments can be described by annoyance stage of Doxey's Host Irridex (1975) where residents start to have misgivings about tourism and argue for limiting seemingly unchecked growth. Although some negative impacts of tourism might be inevitable (e.g., the presence of more non-residents), tourism can be accused of being a main culprit of most problems that occur in a destination. One of the ways to collaborate among residents, the industry and the government of a destination who share the common goals of making the destination a sustainable and successful place to visit and live, would be to communicate information about the factors that are not only directly related to tourism (e.g., the visitor numbers, hotel occupancy, etc.) but also those indirectly related to tourism but can be indicators of

a destination's tourism vitality in various aspects (e.g., resident sentiments on tourism impacts; wage of the tourism industry).

Valuable and abundant data on various status of a tourism destination (e.g., water quality, visitor numbers and resident sentiments) are available by the public sector (i.e., tourism government offices, universities, associations) which can be used for diagnosing the health of tourism. Despite their abundance and quality, however, it is not easy to see the "big picture" or snapshot about a destination's tourism health, because the data are housed by different entities and places. When a variety of existing data and information about tourism can be consolidated in one location, presented in a user-friendly format and is made available for the public's view, it would help increase awareness of and disseminate more accurate knowledge about multiple dimensions of a tourism destination.

For those purposes, this study illustrates the joint efforts made by Hawaii Hotel & Lodging Association (HTLA) and the School of Travel Industry Management at University of Hawaii at Manoa (TIM school) to develop "Hawaii Tourism Dashboard (HTD)." As the word "dashboard" suggests, the HTD is a panel that presents information directly and indirectly related to tourism in Hawaii to diagnose the health Hawaii's tourism and make this information shared among stakeholders of Hawaii tourism. In addition, it is expected that consolidation of information would help discover areas for further research and assist managing tourism in Hawaii. As of December, 2006, the first phase of the HTD has been developed as a website and is ready for public access (Appendix 1).

## **METHODS**

The initial discussions on the HTD between HTLA and TIM school were ensued by discussions among TIM faculty who are familiar with various dimensions of tourism impacts: social/cultural, environmental/energy use, sustainability and economic. Further, an extensive review of potential indicators for the health of destination was conducted including indicators for destination performance (WTO, 2002) and sustainable tourism (UNWTO, 2004). A list of variables for the HTD was then compiled and edited. As the main purpose was to consolidate existing data which are abundantly available albeit hard to locate or dispersed, rather than creating new ones, a variety of data and reports on Hawaii were collected and categorized (e.g., the quality of water and air, trends in wages, resident sentiments on tourism impacts, statistics on visitors and the industry performance).

It was also decided that the data should be presented as simple as possible by visualizing information (i.e., using graphs instead of tables when applicable; using graphics to make it user-friendly). To make the HTD available for the view of the industry, the public and visitors, the layout of the HTD was decided to be a website.

## **OUTCOMES**

Selected indicators or variables for the HTD were organized under seven broadly-defined categories: Resources (quality of sea water, drinking water and air, statistics on wastes), Residents (trends of tourism industry wages, resident sentiments on tourism impacts), Visitors (arrivals, origins, expenditures, purpose of trip, length of stay, daily census and visitor satisfaction), Accommodations (number and types of accommodations; average occupancy rate and daily room rate, RevPAR), Transportation (aircraft

operations by airports in Hawaii, statistics on cruise lines, public transportation, fuel prices), Other Tourism Businesses (revenues of duty-free stores, Food & Beverage establishments) and Other Measures of Hawaii Tourism (reports on Hawaii marketing effectiveness, Tourism's contributions to State economy, Evaluations of major festivals, County product enrichment project evaluations).

Whenever possible, the original data were further simplified for easier understanding by converting the tables to graphs, summing the data and using colors. The website also included a function that enables the viewer to customize the types of information to view (i.e., "My Dashboard").

### **APPLICATION OF RESULTS & CONCLUSIONS**

Despite the exploding growth and successful economic recovery, Hawaii has important issues related to managing the relationships between the tourism industry and local residents. Specifically, residents have mixed feelings toward tourism impacts. While they felt more tourism jobs are needed, they are against additional hotel constructions. They also expressed negative sentiments toward impacts that supposedly tourism has brought about to the islands. Recognizing the importance of mutual understanding and awareness, as well as to make sense out of the abundant but important data scattered around, this paper summarized the process and the contents of "Hawaii Tourism Dashboard (HTD)," jointly developed by Hawaii Hotel & Lodging Association (HTLA) and the School of Travel Industry Management at University of Hawaii at Manoa (TIM school). Other tourism destinations (especially where a lot of quality data are available) can apply this practice as well.

In order to understand the health of a destination especially where the role of the tourism industry is significant not only to the economy but also to other dimensions of residents' lives (e.g., social/cultural, environmental), abundant information should be further interpreted and simplified to be shared among various stakeholders. Although causal effects cannot be established among variables or indicators at the initial stage of the HTD, consolidating existing data can provide a big picture and/or meta-trend from which issues can be detected for further examination (e.g., data-mining, new research projects) to help tourism planning and policy.

To enhance the value of the HTD, more indicators should be considered to diagnose the health of tourism in Hawaii in the subsequent phases. Those include local residents' access to superstructure and public resources which are heavily frequented by visitors (e.g., parks, beaches) and the impacts of tourism businesses' sustainable practices on Hawaii. Further, in the next phase, efforts will be made to develop a visual scale that can present the status of Hawaii tourism. For example, a scale using a "smiley" (i.e., facial expressions of unhappy, happy, neutral) can be developed to denote the status of Hawaii tourism. This can enhance the understanding of Hawaii tourism stakeholders about the plethora of information and the interdependencies of factors. It would be also important to update the content of the site regularly or whenever the original data are available.

Eventually, the HTD can help increase the awareness and understanding of tourism issues, even if they do not seem directly relevant at the public's first glance. The HTD can play a crucial role in making Hawaii more sustainable, for which efforts are enthusiastically spreading throughout the State.

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*Sources for Hawaii Tourism Dashboard are not added here due to the page limits, but will be provide at presentation.*

# Appendix 1

## Hawaii Tourism Dashboard website

<http://66.135.239.136/tim/>

