

AN EMPIRICAL ASSESSMENT OF A STRUCTURAL EQUATION MODEL OF RESIDENTS' ATTITUDES FOR SUSTAINABLE TOURISM DEVELOPMENT: A CASE STUDY OF O'AHU, HAWAI'I

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ABSTRACT

Understanding residents' perceptions helps tourism planners strategically utilize resources to improve resident involvement and, therefore, increase the sustainability of future tourism development. A model to understand these perceptions was created using concepts from the literature. Structural Equation Modeling (SEM) was used to analyze survey data collected from O'ahu residents. The results indicate that there is a strong relationship between residents' community satisfaction and their perceptions of the environmental impacts of tourism.

INTRODUCTION & LITERATURE REVIEW

This research provided an exploratory analysis of sustainable tourism development and resident attitudes on O'ahu based on the conceptual model developed by Lottig [16]. A paper survey was administered to a convenience sample of residents on O'ahu. The instrument investigated residents' perceptions of tourism's environmental impacts and how these perceptions relate to government management of tourism, community satisfaction, and views on sustainable tourism development on O'ahu. Policies can manage tourism so that tourism's economic benefits outweigh the environmental costs, making the destination more sustainable. These policies require an understanding of how residents form attitudes towards tourism. Thus, utilizing this knowledge to find ways to make O'ahu tourism more sustainable. The model presented in this research increases the understanding of how residents' attitudes are formed.

Tourism impacts can be positive and negative, requiring that tourism's costs and benefits be understood so planning can benefit stakeholders and the destination over time. Sustainable tourism development can occur when the needs of present tourism development are not in conflict with the destination's future attractiveness as a tourism destination [20]. Sustainable tourism development requires that environmental, social, and economic costs and benefits are distributed equitably to all stakeholders, including residents. Residents often depend economically on tourism but pay through environmental and social impacts that change their way of life and threaten the destination's future competitiveness.

O'ahu is a mature destination that has experienced tourism impacts for decades, including a \$12.3 billion economic impact in 2006 [6]. Tourists can compete with residents for resources, particularly in island communities. Tourism's energy, water, and developable land needs can directly conflict with residents' needs if not fairly managed. Tourism's energy requirements, particularly for transportation, put a strain on local supply and cause pollution [19][2]. High resident and tourist water demands require ever-increasing pumping from delicate natural aquifers that can cause saltwater or chemicals to intrude the groundwater source, rendering it useless [17]. Surface water impacts from recreational uses of the ocean such as boating and scuba diving can pollute water and/or damage fragile coral reefs. These reefs

are also damaged by sedimentation caused by land use changes for development [7]. Land use changes can also alter the character of the land resulting in a loss of aesthetic beauty, reduce and fragment wildlife habitat, and change drainage and groundwater recharge patterns. Resident perceptions of the environmental impacts of tourism affects their attitudes towards tourism development [15][3].

Balancing the needs of residents and tourists on O‘ahu requires sustainable ways to meet demands. Many residents on O‘ahu depend on tourism for their livelihoods [11] yet resident attitudes towards tourism are declining as environmental impacts become more evident [11][12]. Awareness of negative impacts of tourism is increasing and resources must be managed carefully and residents’ satisfaction continually gauged. Government management of tourism development must control tourism’s negative impacts so that residents perceive that O‘ahu’s resources are available for both their benefit and those of tourists [1][9][21][8][22][14]. Community satisfaction also affects residents’ attitudes towards sustainability. Residents who are more satisfied with the development of tourism are generally more satisfied with their communities [13][14][3]. Finally, how residents feel about the benefits of sustainable tourism development impacts residents attitudes towards tourism [5][20][4][18]. Sustainable tourism development is already being explored by the creation of the Sustainable Tourism Study Group [6].

METHODOLOGY

To examine the relationships between the four factors identified from the literature review (environmental impacts of tourism, overall community satisfaction, government management of tourism, and sustainable tourism development), a conceptual model was developed that examined the nature of these relationships (Figure 1). Structural equation modeling (SEM) is a “comprehensive statistical approach to testing hypotheses about relations among observed and latent variables” [10, p. 1]. Essentially, SEM tests the validity of relationships between different parameters of a model. In this study, SEM was used to examine how the four factors influence residents’ attitudes.

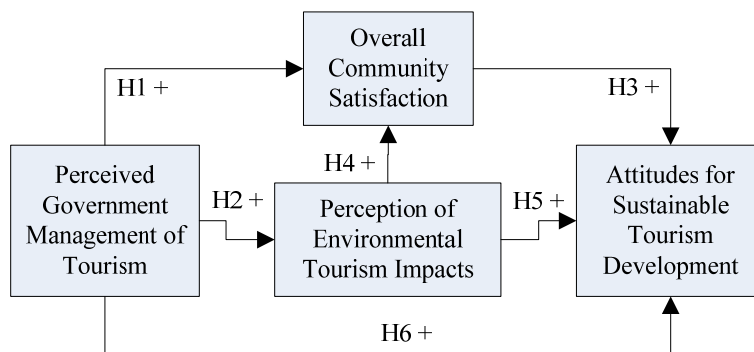


Figure 1: Conceptual Model

CONCLUSIONS

Five of the six hypothesized relationships identified by the literature were accepted. The study results indicate that a very strong relationship exists between residents’ community satisfaction and their perceptions of the environmental impacts of tourism. This signals to planners the importance of controlling tourism’s detrimental environmental impacts to maintain or improve residents’ community satisfaction. The allocation of government funds can also be more effective if the consequences of environmental impacts on community satisfaction are understood. Examples include cleaning up pollution, treating wastewater and sewage, and creating and maintaining natural areas for residents and

tourists to enjoy. Collaborative efforts between government agencies, citizens groups, and tourism suppliers increase the ability of government to manage tourism to benefit all stakeholders. The HTA and other tourism groups should continue to educate the residents about the positive and negative consequences of tourism so that residents encourage more sustainable tourism development.

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