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## Abstract (Doctor)

Title of Thesis Evaluation of Economic Impacts for Sustainable Tourism: An Integrated Approach

## Approx. 800 words

Tourism is among the fastest growing economic sectors worldwide. It is undeniable that the tourism has become a primary source of foreign exchange and a key driver for economic growth, and that it generates excellent opportunities for the welfare of the countries and communities. The economic contribution and impact of tourism are essential issues in the world of tourism. Tourism activities, number of visitors, length of stay, and visitors' spending generate a tremendous economic contribution to host countries. However, tourism also presents many challenges and threats to the local communities and the environment. Unchecked tourism growth could create pressure on natural and cultural resources and the local economic and social environment. Therefore, the implementation of tourism needs to be carefully monitored. Sustainable tourism is necessary to balance the economic, environmental, and social perspectives in order to meet the requirements for improving people's lives.

The main objective of this thesis is to formulate recommendations for sustainable tourism through the evaluation of the economic impacts of tourism using an integrated approach. The integrated approach consists of importance-performance analysis (IPA), the inter-regional input-output (IRIO), and the computable general equilibrium (CGE) approach. In order to achieve the primary objective, Indonesia (Makassar city) and Japan (Shizuoka prefecture and Kyushu region) were selected as the locations of the research and a number of studies were conducted, with the specific research objectives.

The thesis is divided into seven chapters. Chapter 1 describes the background of the study supported by relevant facts and theories. The chapter explains the main objective of the study, details the case studies, explains the integrated approach used in the study, and gives an overview of the structure of the thesis.

Chapter 2 introduces some literature on tourism, starting with the economic contribution and impact of tourism. Then, an explanation of sustainable tourism and tourism research approaches is provided.

Chapter 3 discusses a study conducted at Makassar, Indonesia, which examined the importance and performance of streetscape in the old town in Makassar city from the residents' viewpoints, using IPA. The findings show notable discrepancies between the perceptions and preferences of residents regarding the streetscapes. The differences indicate that the streetscapes' attributes are not in line with the residents'

expectations. The diversity of the residents' points of view provides rich data for stakeholders, which can be used as the basis for making appropriate decisions in preparing policies or planning for tourism development.

Next, Chapter 4 explores the economic impact of tourism activities, particularly regarding tourism expenditure, in a base case study and in the future in the South of Sulawesi province using the CGE approach. The tourism expenditure of South Sulawesi province, from 2009 to 2016, is used as the main data in this study. The model also examines the I-O Table of South Sulawesi in 2009. The markets in this model are 111 commodity markets, one labor market, and one capital market. In order to measure the economic impact, a 40% increase in tourism expenditure in the future was simulated.

In Chapter 5, a study carried out in Shizuoka prefecture, Japan is explored. The IRIO model is used to evaluate the spillover effects between cities and towns in Shizuoka prefecture. Moreover, the economic impacts of partnerships in sightseeing areas (DMOs) in Shizuoka prefecture are measured. The results of numerical simulations show that the highest induced production values by municipality was found in Shizuoka, followed by Hamamatsu, Ito, Atami, and Gotenba cities. The greatest induced production values by sector were personal services, commerce, transport and postal services, and food and beverage. The induced production of the Izu DMO was the greatest, followed by the Suruga and Hamamatsu DMOs.

Furthermore, Chapter 6 explains the methodology used to evaluate the impact of earthquake disasters on the Kyushu region's inbound tourism economy. Similar to Chapter 4, the IRIO model was also used in this study. The 2011 input-output table of prefectures in the Kyushu region was employed to construct the IRIO table. The IRIO table was used to calculate the induced production and spillover effect on seven prefectures, the capital cities, and several sightseeing cities in the Kyushu region. The primary data used in this study are the number of inbound tourists in 2019, as provided by NTT Docomo. The findings show that Fukuoka has the highest spillover effect values, followed by the Oita and Nagasaki prefectures. Furthermore, the highest spillover in the capital city was in Fukuoka, followed by Nagasaki, and Kagoshima. Regarding sightseeing cities, Beppu has the highest spillover effects value, followed by Yufu, and Kitakyushu. The study also illustrates two forms of spillover effects, namely, annual overall effects on all municipalities in 2016 and the net effects of May 2016 and 2017 on capital and sightseeing cities.

Finally, the conclusion of this study is provided in Chapter 7, which formulates several recommendations for sustainable tourism, linked to studies exploring aspects of sustainable tourism and Sustainable Development Goals (SDGs).