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# Strategy of increasing green halal tourism industry in Madura using structural equation modeling

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**Abstract**---The purpose of this study is to identify the potential that can be developed in increasing halal tourism through the Green Halal Tourism strategy in Madura. This study is quantitative study and method used to develop a Halal Green Tourism strategy in Madura is by uses of *Structural Equation Modeling* (SEM). The findings of the study reveals that there is a significant effect on these four variables namely Tourism services (TS), Human Resources (HR), Tourism Infrastructure (TI) and Government Policy (GP) in increasing halal green tourism. Furthermore, the government may take several actions, including capacity building, offering direction for community economic empowerment, developing hospitality for tourists, and increasing awareness of halal tourism. Likewise, the government must promote and collaborate with halal tourism attractions in Madura and numerous other regions of Indonesia in order to further improve international visitors' visits and duration of stay.

**Keywords**---green halal tourism, tourism service, human resource, tourism infrastructure, government policy,

## Introduction

Indonesia's prospects in developing halal tourism have been recognized worldwide. This is not without reason, considering that Indonesia has won many awards in the realm of world halal tourist destinations. For example, in 2019, Indonesia was ranked first as the Best Halal Tourism in the World according to the Global Muslim Travel Index (GMTI) ahead of 130 other participating countries. This achievement refers to the record, 20% or around 14.92 million foreign tourists who come to Indonesia are Muslim tourists. Indonesia's achievements are also assessed in terms of access, communication, environment, and services while in halal tourist destinations. Interestingly, Indonesia was recognized with 12 out of 16 honors at the 2016 World Halal Tourism Awards, which were held in Abu Dhabi on December (Kemenparekraf, 2021).

The increase in awareness and understanding of halal products contributes to the expansion of the halal sector (Hanafiah & Hamdan, 2020; Satriana & Faridah, 2018) As a result of the expansion of the halal sector, halal tourism has emerged as a new phenomena (Samori et al., 2016). Additionally, many investigations explain that Muslim travelers are concerned about consuming sharia-compliant products and services when traveling tourist spots (M. M. Battour et al., 2010, 2012; Jafari & Scott, 2014).

The demand for halal tourism is expanding as more people become aware of its benefits (M. Battour & Ismail, 2016). In keeping with the rise in Muslim tourists each year, this development is expected to continue (Bhuiyan et al., 2011; El-Gohary, 2016; Henderson, 2016; Yusof & Shutto, 2014). Muslim travelers are predicted to climb by 30 percent in 2020, with the total value of their spending expected to reach 200 billion dollars (Crescent Rating, 2016). In order to fully exploit the enormous potential of halal tourism, many countries (both Muslim and non-Muslim) have begun to develop tourism products, services, and infrastructure that are specifically tailored to the demands of Muslim tourists (Husna, 2021). But there are still many business individuals and parties involved in the tourism sector who are limited in their comprehension (of both products and the industry as a whole).

As a result of the numerous interactions involving several parties, tourist locations and enterprises involved in this industry can be regarded as a business ecosystem with a high level of complexity. In terms of global economic growth, tourism is a promising sector because it is also a sector that is resistant to global crises, as evidenced by the fact that the number of tourist trips has increased from 25 million in 1950 to 278 million in 1980, 528 million in 1995, and 1.1 billion people in 2014 (Ferdiansyah, 2020). One of the fastest-growing economic sectors, according to Chanin, et al, tourism generates a significant amount of revenue. The rising tourism industry's claim that it can enhance tourist visits, government revenues, and aid local communities as a source of income is a plausible assumption. This results in a high level of cooperation between tourism attractions and regions. There is a rapidly expanding halal tourist industry in Madura, which adds significantly to regional GDP and serves as a solid source of foreign cash for the region (Chandra & Damarjati, 2017)

There is no doubt that an increase in domestic and international travel, as well as halal tourism, will result from the growing number of people who consider it a need of life, and from the advancement of technology that makes it simpler for tourists to learn about halal tourism. In the viewpoint of visitors, the industry or field will gain competitive value or competitiveness by implementing the notion of green halal tourism (Buhalis & Amaranggana, 2013). Green halal tourism, is all forms of technology utilization information and communication, human resources, infrastructure and government policies in accelerating the growth of the development of tourism activities.

## **Hypothesis Development**

### **Factors Affecting Halal Tourism**

When you hear the name Madura Island, perhaps what most people think of is satay, karapan sapi, sickle, or even salt. However, in recent years, the name of the island, which is located north of the city of Surabaya, is quite sticking out and grabbing attention. Not only because of the polemic surrounding the discourse of establishing it as its own province, but also because of its tourism potential which is starting to be recognized by the wider community.

The Madurese population is almost 98% Muslim, so the tourism potential in Madura needs to be developed according to Islamic teachings. Given the fact that Indonesia (including Madura) has the world's biggest Muslim population, Suid et al. (2017) claim that the government should be able to build an Islamic tourism concept with characteristics geared for the Muslim tourist market. Madura is an area that has nature that has not been much affected by industrial progress. So that the natural beauty which is a heritage and cultural tradition can still be maintained its authenticity. According to Bassi (2015), the ecotourism concept is supposed to be able to ensure the distribution of economic advantages to the public and local authorities, as well as the preservation of environmental resources. The combination of tourism potential, Madura's natural potential and the potential of Islamic attributes, the research "Development of a Green Madura Halal Tourism strategy" was formed. The potential for quick expansion of the halal tourist business has not been completely realized by the regional government in Madura, which has not adequately responded to the situation. It is still necessary to enhance Muslim-friendly services and facilities in tourist locations such as halal cuisine, simple access to prayer, and safe travel, as well as the growth of halal awareness.

Hanafiah et al. (2021) states that the Muslim-Friendly Tourism (MFT) Attribute is evolving due to new trends that are shaping and changing the way and reasons a Muslim travels. Early 2021 The Muslim tourist market is growing rapidly so destination marketing must pay more attention to the common problems that arise when Muslims travel (Piranda et al., 2022). Non-Muslim tourism destinations may only promote MFT packages. if they understand the tangible and intangible MFT products and services demanded by Muslim travelers. Tangible MFT attributes include prayer facilities and the availability of places to eat and halal food. Meanwhile, non-tangible MFT attributes include entertainment and activities that follow Islamic moral principles.

Structural Equation Modelling (SEM) is used by Bakar et al. (2020) to assess the desire or intention of clients to visit halal ecotourism areas. Visitors to halal ecotourism locations learn about environmental issues and enjoy halal entertainment at these attractions. Customers' intentions to visit halal ecotourism areas were one of the five factors utilized in the study, along with four other independent variables (brand equity, culture, quality and culture). The four exogenous latent variables showed a significant connection with the endogenous latent construct, namely the customer's interest to visit halal ecotourism sites in multiple regression analysis.

A study conducted by Adiba & Nasrulloh (2021) found that there are six factors that come into play the intention of Muslim tourists to travel in accordance with Sharia law on Madura Island. These factors are: public perception, religious beliefs, infrastructure; halal marketing; halal awareness; and destination image. The personal perception element of the society was discovered to be the most significant factor in the decision to travel for Muslim visitors. The government is expected to make appropriate regulations in managing sharia tourism so as to create an attractive perception of sharia tourism in Madura.

Increased interest in returning to halal tourism is necessary to sustain and raise the number of visitors (Astuti & Asih, 2021). As a result, having a good image as a travel destination is essential. The parameters of products and services, followed by innovation, environment, community, and governance, were determined to have the greatest and most significant impact on visitors' intents to visit. By boosting the image of the destination's products and services that have the greatest impact on tourists' desire to return, efforts to improve the likelihood they will do so will be more effective which followed by new ideas, the natural world, people, and institutions of government. It's all about making the products and services given by places better, more enjoyable, and more affordable so that tourists can get the most out of their vacation time. Destination products and services are encouraged to be improved, and new products and services are offered to encourage innovation in the Destination industry. Environment-related components are being developed in order to raise the environmental responsibilities of destination management.

As noted by Sumaryadi et al. (2021), the quality of a destination had a positive significant influence on tourist satisfaction, and that the quality of a destination had a positive influence on the Islamic attributes of the destination, but that the Islamic attributes of the destination had no positive significant influence on tourist satisfaction. Additionally, we discover that Islamic characteristics of locations do not function as a moderator in the link between destination quality and visitor pleasure. We make advice to help locations enhance or improve their quality in order to maximize tourist satisfaction. Muthmainnah & Rubiyanti (2020) added that the factors that can encourage the interest of visiting tourists are good facilities in halal tourist destinations such as facilities for worship, the availability of a variety of halal food, security and ease of access to tourist attractions, or the presence of a guide. and staff who know and respect Islamic principles. This is consistent with the findings of Amzal et al. (2021) that interest in visiting tourism destinations is influenced by the variable electronic word of mouth, which has a positive but not significant influence on the interest of millennial Muslim tourists

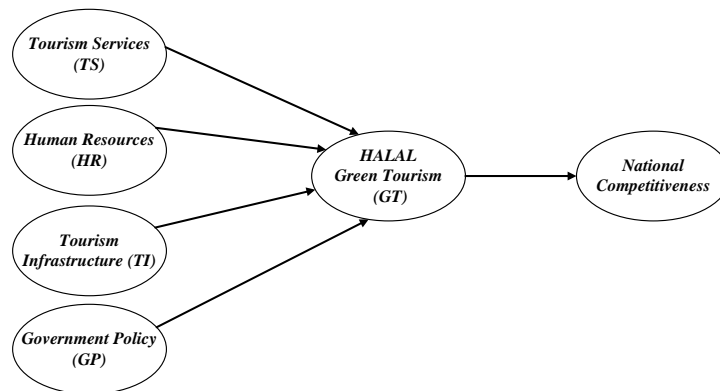
visiting halal tourism, and by the accommodation variable, which has a positive and significant effect on the interest of millennial Muslim tourists visiting halal tourism.

Based on the results of the literature review, the researcher wants to reveal 5 variable dimensions related to green halal tourism in Madura, East Java, Indonesia. Statistical analysis is used in the following stages of testing to evaluate the probability that the provided hypothesis is accurate.

### Research Method

A quantitative technique is used in this study since it saves time and money. In this study, the population was represented through a stratified sample approach. There are 190 male and 170 female respondents in this study. This study uses a questionnaire that was distributed to 360 respondents in the period September-October 2021. The SPSS version 22.0 and the AMOS version 22 were utilized for the data analysis in this study. A two-step data analysis process was utilized to assess the demographic profile of respondents, with descriptive statistics being employed in each stage. Following the confirmation factor analysis (CFA) used to evaluate the measurement model, the simultaneous evaluation of both the measurement and structural models is carried out.

Halal tourism research was conducted to examine the relationship between, the independent variables in this framework are Tourism services (TS), Human Resources (HR), Tourism Infrastructure (TI) and Government Policy (GP) mediating variables Halal Green Tourism (GT). The independent variable is National Competitiveness (NC). Based on the existing theoretical studies, a model of the relationship between constructs is proposed as shown below:



The structural equation modeling framework involves five hypotheses as shown in the figure above. Hypothesis testing is the use of statistics to determine the probability that a given hypothesis is true. The hypothesis test is intended to test the proposed hypotheses. The test is carried out by analyzing the CR value and P value from the results of SEM data processing, then compared with the required statistical limits, which are above 1,96 for the CR value and below 0,05 for the P

value. If the results of data processing show the value of these requirements, then the hypothesis submitted is acceptable and has a significant impact.

- a. Null hypothesis (I) : Tourism Services (TS) have an effect on Halal Green Tourism (HGT)
- b. Null hypothesis (II) : Human Resources (HR) has an effect on Halal Green Tourism
- c. Null hypothesis (III) : Tourism Infrastructure (IT) affects Halal Green Tourism (HGT)
- d. Null hypothesis (IV): Government Policy (GP) has an effect on Halal Green Tourism (GT)
- e. Null hypothesis (V) : Green Tourism (GT) has an effect on National Competitiveness

## Research Result

### Measurement model assessment

The overall model feasibility test was carried out using Structural Equation Modeling (SEM) analysis, which was also used to analyze the proposed hypothesis. The results of model testing through SEM are as shown in the figure 1 below:

### Analysis Step

#### Benfor Causality Relationship Path Diagram

Based on the existing theoretical studies, a diagram of the path of causality between constructs and their indicators (figure) is drawn.

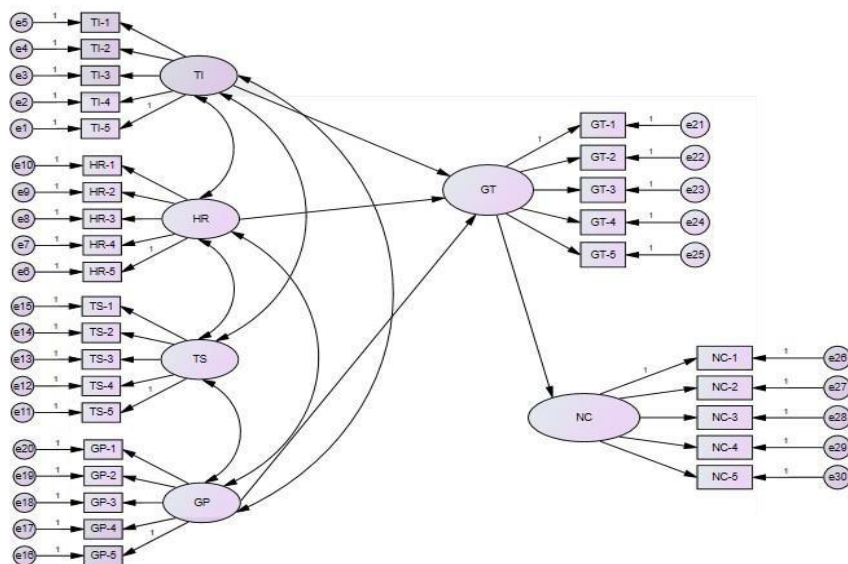


Figure 1. Model Causality Relationship Path Diagram

**Unidimensionality Test of each construct with Confirmatory**

**Factor Analysis**

Confirmatory analysis was carried out between exogenous variables and between endogenous variables. In the model in Figure 1. there are 4 exogenous variables (Tourism services (TS), Human Resources (HR), Tourism Infrastructure (IT) and Government Policy (GP)).

**Exogenous Construct Confirmatory Test**

Confirmatory Test Processing Results for Exogenous Constructs consist of tourism services (TS), Human Resources (HR), Tourism Infrastructure (IT) and Government Policy (GP).

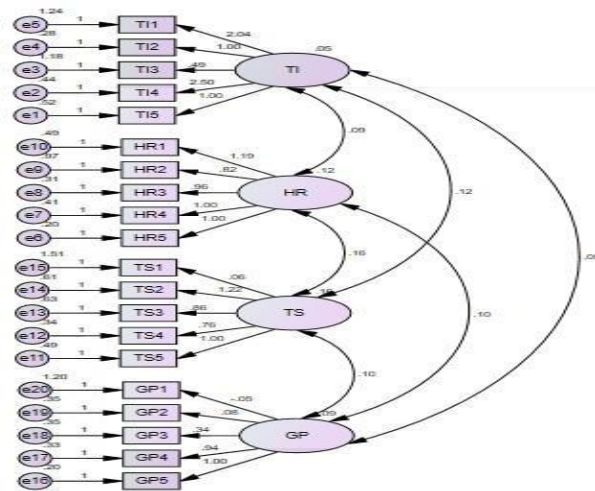


Figure 2. Confirmatory Exogenous Constructs (Unstandardized estimates)

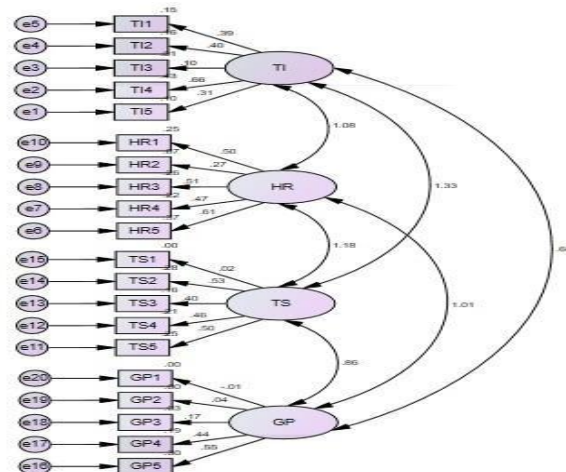


Figure 3. Exogenous Construct Confirmator Image (Standardized estimates)

When a confirmatory factor analysis is performed, a model's latent variable's dimensions are measured, and this data demonstrates how well the model's variables fit together.

### **Discussion**

The findings of the study reveal that Tourism services (TS) has a significant effect in increasing halal green tourism, Human Resources (HR) has a significant effect in increasing halal green tourism, Tourism Infrastructure (TI) has a significant effect in increasing halal green tourism, and Government Policy (GP) also has a significant effect in increasing halal green tourism. Therefore, it can be concluded that there is a significant effect on these four variables in increasing halal green tourism

Indonesia has significant halal tourism potential. The halal tourism business in Indonesia has grown steadily since 2015. The Global Muslim Travel Index (GMTI) continues to rank Indonesia as one of the finest halal locations. Indonesia placed sixth in 2015. It then rose to third in 2016, second in 2017, second in 2018, and eventually first in 2019 alongside Malaysia. Indonesia also received 12 honors at the 2016 World Halal Tourism Award (WHTA). These numerous accomplishments cannot be divorced from the government's plan to promote halal tourism in Indonesia. The Indonesia Muslim Travel Index (IMTI) initiative was developed in partnership with Crescent Rating Mastercard to reach the top spot in GMTI 2019 (Sayekti, 2020). The government also has three key strategies for growing halal tourism in Indonesia: marketing, destination development, and industrial and institutional growth. The government creates a marketing idea based on origin, destination, and time. Then promote via branding, advertising, and selling, as well as social media and public media. Several regional leaders are trying to establish halal tourism attractions, especially in the Madura region. The Halal Tourism Growth Acceleration Team was formed in partnership with MUI DSN, PHRI, and ASITA to boost industrial and institutional development. Nevertheless, the Indonesian people must be involved in the growth of halal tourism. Consequently, growing tourism services, human resources, infrastructure, and government policies must be socialized.

### **Conclusion**

The results of the study show that there is a significant effect on these four variables in increasing halal green tourism. The government may take several actions, including capacity building, offering direction for community economic empowerment, developing hospitality for tourists, and increasing awareness of halal tourism. Likewise, the government must promote and collaborate with halal tourism attractions in Madura and numerous other regions of Indonesia in order to further improve international visitors' visits and duration of stay.

### **Suggestion**

The halal tourist industry has enormous potential since halal has evolved beyond religion to become a choice, an opportunity, and a way of life. Madura possesses both assets and potential for halal tourist development. These advantages and



potential must be effectively managed and exploited. Government commitment and assistance are urgently needed to resolve the deficiencies and dangers to the growth of halal tourism in Madura, covering the districts of Bangkalan, Sampan, Pamekasan, and Sumenep. This great potential needs to be balanced with reliable management of superior human resources to make Sumenep in particular and several other districts in Madura into halal tourist destinations. This includes several aspects such as publication, arrangement of well-organized tour packages, introduction of tourist attractions management standards and public education in accepting tourists.

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