

# Halalan.Id: Design and Build Halal Tourism Application to Develop Halal Smart City in East Java

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## ABSTRACT

The global tourism industry is aware of the significant development of Halal Tourism, both supported by practitioners and researchers. The support from these two perspectives gives rise to strategies to develop Halal Tourism product services based on Islamic Law (Shariah Law). One form of supporting tourism development is the development of digital applications that support the halal tourism industry. This study will examine the readiness of the people of East Java to the use of technology and information. This study focuses on changing from a manual-based marketing process to electronic smartphone-based marketing connected to the internet. The study results found that internal factors, Perceived Usefulness (PU) and Perceived Ease of Use (PE), were partially influential and significant in digital technology in East Java society, but internal factors on Perceived Ease of Use had no influence on digital technology in East Java society.

**Keywords:** *Halal Tourism, TAM, Islamic Halal Industry*

## 1. INTRODUCTION

As a country with religious and cultural diversity, Indonesia has a historical heritage and traditions that are inseparable from the spiritual aspects and religious practices of the community. Halal tourism has tremendous potential to be developed and the increasing awareness of Muslim consumers to maintain sharia values even in tourism activities [1]. Cultural and religious heritage with diversity in race, ethnicity, language, and customs is a potential for tourism development [2]. The development of sharia or halal tourism is an alternative for industrial travel in Indonesia in line with the trend of the halal tourism industry as part of the global sharia economy [2].

The Indonesian halal tourism industry has good economic prospects. Because the tourism industry not only tries to cause material and moral harm for themselves but also helps increase government revenues [3]. Halal tourism is for Muslim tourists and includes all tourists (Muslim and non-Muslim) [4]. Indonesia builds a tourism centre, and the development strategy aims to use the tourism competitiveness index as the primary

indicator, covering infrastructure, promotion, training of human resources, and significantly improving tourism business skills [5].

The global tourism industry is aware of the significant development of Halal Tourism, both supported by practitioners and researchers. The support from these two perspectives gives rise to strategies to develop Halal Tourism product services based on Islamic Law (Shariah Law) [6]. Halal is a concept of Islamic religious principles, which used to declare something that is allowed to be consumed by Muslims based on the Qur'an, hadith, or ijtihad (ulama's agreement) [7]. The halal concept has given high appreciation because halal products considered healthier, cleaner, and tastier products [7].

The era we are facing today is an era of rapidly developing technology. Characteristics of tourist objects determine the success of market communication [8]. One form of supporting tourism development is the development of digital applications that support the halal tourism industry [9]. The technology that cannot separate from society, both in the world in general and in

Indonesia, is the use of smartphones. The design contained in this smartphone provides various features that can make it easier for users to access information to diverse entertainment. These complementary features include cameras, bluetooth, internet, and the Global Positioning System (GPS) [10]. One of the functions of this GPS is knowing how to activate Location-Based Service (LBS), or a feature that provides information according to the smartphone owner's whereabouts.

The Muslim population in the world is very diverse and geographically dispersed into segments in Muslim-majority destinations and sizable minorities in other destinations. Indonesia is designated as the world's best halal tourism destination or Halal Tourism 2019 by the 2019 Global Muslim Travel Index (GMTI) standards. The country's territory outperformed 130 destinations from around the world. The rating agency Mastercard-Crescent places Indonesia in the first place in the GMTI standard with a score of 78 along with Malaysia, which is both in the top ranking. As the world's best halal tourism destination, Indonesia has recorded a gradual increase from rank 6 in 2015, ranking 4 in 2016, ranking 3 in 2017, ranking 2 in 2018 ranking, finally ranking 1 GMTI in 2019.

Here are the top 10 Halal Tourism destinations based on the top Organization Islamic Cooperation (OIC) in 2019:

**Table 1.** Top 10 Islamic Countries Most Destined 2019

GMTI 2019 Rank	Destination	Score
1	Malaysia	78
1	Indonesia	78
3	Turkey	75
4	Saudi Arabia	72
5	United Arab Emirates	71
6	Qatar	68
7	Morocco	67
8	Bahrain	66
8	Oman	66
10	Brunei	65

Some researchers distinguish the definition of Islamic Tourism from Halal Tourism. As Carboni et al. (2014) in (Battour & Ismail, 2016) define Islamic Tourism as tourism following Islam, involving people of the Muslim faith who are interested in maintaining their personal religious culture while travelling. This definition considers Islamic law, target customers or Muslims, and tourist locations, but the products and services offered, such as food, worship facilities, had been ignored. However, Carboni recommends that Islamic tourism is not restricted to religious purposes only and is not exclusively in or within Muslim countries [6].

While the definition of Halal Tourism is any tourism object which according to Islamic teachings is allowed to used in the tourism industry [6]. The definition considers Islamic law (sharia) as the basis for delivering tourism products and services to target customers who are

primarily Muslim, such as halal hotels (sharia-compliant hotels), halal villas, halal restaurants, and halal travel. The definition claims that the location of the activity is not limited to the Muslim world. A tourist attraction with Islamic solid norms and values can successfully promoted as a tourist destination for non-Muslim tourists interested in Islamic culture and halal hospitality [5]. Therefore, includes services and products designed for Muslim travellers in Muslim and non-Muslim countries. Furthermore, the definition explains that tourist destinations are not necessarily related to religion. This is perhaps one of the common motivations of tourism.

East Java is one of the provinces in Indonesia that aggressively promoting Halal Tourism. East Java presents a variety of tourist attractions, such as Mount Bromo, Mount Semeru, Tomb of the Guardians, Flora and Fauna Park, historical relics of the Mojopahit-Singosari kingdom, unique mosque buildings, Cangar baths, Jatim Park, Situbondo White Sand, Ngliyep Beach and a series of other tourist attractions that could developed into tourist objects by providing services and facilities according to the needs of Muslims [11]. The large number of tourism potentials in East Java inspires the government to continue to innovate in accordance with the prevailing trends in the global industry. One form of support from the East Java government is to increase regional income from tourism by implementing Halal Tourism to attract foreign tourists.

So, in year 2019, the Ministry of Culture and Tourism of East Java Province held the Jatim Fair exhibition with the theme "Halal Tourism: Indonesia the Halal Wonders". At the Jatim Fair, there are several booths related to Halal Tourism such as Umrah travel hotels, food, holiday packages and booths selling worship tools for Muslims. So, that the Muslim community can look for recommendations for places to halal food in East Java.

To accelerate development and support government programs in advancing Halal Tourism in East Java, it is necessary to integrate contemporary digital sophistication with halal tourism objects had recorded at the East Java Culture and Tourism Office. This research was conducted to determine the internal, external, benefits, and convenience of the people of East Java in accessing halal tourism transportation and accommodation so that a Halal Tourism application design can be carried out to develop halal tourism in East Java.

## 2. LITERATURE REVIEW

### 2.1 Technology Acceptance Model

To support current technological advances, many technologies make it easier to make transactions or search for information on users or technology users (Marini & Sarwindah, 2017). The development of information systems being done manually to experiencing changes based on online technology

coupled with internet facilities, communication tools such as smartphones can facilitate transactions and information with distance and time efficiency.

The technology acceptance model (TAM) is one of the widely used theories in information systems research. TAM introduced by Davis (1989) and is used to predict whether a new technology would be adopted by individuals, groups, or organizations [12]. TAM refers to the theory of reasoned action. It was a most straightforward form. It proposes that perceived ease of use, perceived usefulness, attitudes toward service, and behavioural intentions will predict actual technology use [12]. TAM has undergone many additions and developments, such as a unified theory of the acceptance and use of technology.

The use of digital-based information technology has a significant impact on the development of knowledge in society. TAM aims to explain and estimate user acceptance of an information system. TAM provides a theoretical basis to determine the factors that influence the approval of a technology in an organization. TAM explains the causal relationship between the belief in the usefulness of an information system and the ease of use and the behaviour and actual use of users of an information system.

TAM also explains that Perceived usefulness (PU) and Perceived Easy Of Use (PEOU) have main relevance for user acceptance of information technology (Davis et al., 1989). Thus, this TAM research provides useful input for understanding individual interest in the use of information technology

### 2.2 Halal Tourism and Halal Smart City

According to the Ministry of Culture and Tourism, the term halal tourism had given since 2015, when a World Halal Tourism Summit event held in Abu Dhabi, UAE. Previously, the tourism world only knew it as a Muslim tour or something like that. In this event, the World Halal Tourism Summit is trying to realize that the market share of halal tourism is substantial and needs to develop continuously.

The Ministry of Culture and Tourism defines Halal Tourism as an activity supported by various facilities and services provided by the community, entrepreneurs, government, and local governments that comply with sharia provisions. According to [10] halal tourism is in demand by the Indonesian people because of the universal characteristics of its products and services. Tourism products and services, tourist objects, and tourist destinations in Halal Tourism are the same as tourism products, services, objects, and destinations in general. Therefore, they do not conflict with sharia values and principles. So halal tourism is not limited to only religious tourism but has a broad scope.

Meanwhile, the Indonesian regional destination that won the "Best Halal Travel Destination" award from 10 other halal destinations in Indonesia, according to the

2019 Indonesia Muslim Travel Index won by Lombok Destinations. Meanwhile, the development of halal tourism in Indonesia can apply the elements of developing family-friendly destinations, Muslim-friendly services and facilities, and being aware of Halal and destination marketing programs that can be stimulated the user of the smart tourism concept by building elements of informativeness, accessibility interactivity, personalization for Muslim tourists. [13]

The concept of Halal Tourism is a process of integrating-interconnecting Islamic values in all aspects of tourism activities. The value of Islamic law as a belief and belief held by Muslims is the primary reference in building tourism activities. Sharia tourism considers the fundamental values of Muslims in its presentation, ranging from accommodation, restaurants to tourist activities which always refer to the Islamic norms of halalan thayyiban which can also be enjoyed by non-Muslim communities without any restrictions. Halalan thayyiban here means that the object of Halal Tourism avoided from unclean places, doubtful, which does not violate ethics and decency.

## 3. RESEARCH METHOD

### 3.1 Research Design

Based on the background discussed in this study, it is a causality study that analyzes the phenomenon's effect through hypothesis testing. This study focuses on changing from a manual-based marketing process to electronic smartphone-based marketing connected to the internet. This study will examine the readiness of the people of East Java to the use of technology and information. Researchers will use several variables in measuring the level of community readiness in the use of technology and information.

In this case, the object of research is the people who are in the province of East Java who already have recommendations for halal tourism packages: Malang, Banyuwangi, and Surabaya. The research model is as follows:

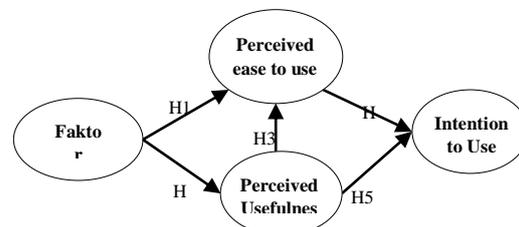


Figure 1 Research Model

The data analysis used in this study is Structural Equation Modeling (SEM) by first testing its dimensions with confirmatory factor analysis. Then, this research aims to use the SEM method to determine the clause relationship between the dependent and independent variables. Used PLS Software in this study.

## 4. FINDINGS AND DISCUSSION

### 4.1. Outer Model Evaluation

According to Chin (1998) in [14], a correlation could be said to meet convergent validity if it has a loading value of greater than 0.5. The output shows that the loading factors provide value above the value suggested that is equal to 0.5. So that the indicators used in this study have met the convergent validity (convergent validity) Chin in Ghazali (2012). This research model measured three reflective indicators: internal factors, Perceived ease, ease of use, and perceived usefulness.

### 4.2. Discriminant Validity Test

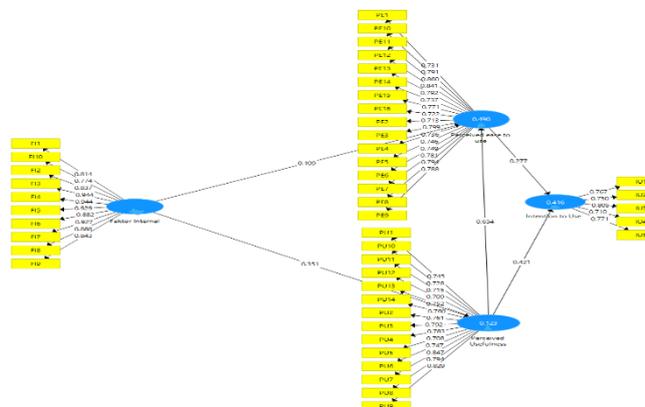
Indicators necessary to test discriminant validity (*discriminant validity*), An indicator is valid if it has the highest factor loading value to construct the destination than the value of the loading factor to other constructs.

**Table 2.** Discriminant Validity

	Internal factors	Intention To Use	Perceived Usefulness	Perceived Ease to Use
Internal factors	0.880			
Intention To Use	0.379	0.761		
Perceived Usefulness	0.351	0.613	0.763	
Perceived Ease To Use	0.339	0.568	0.692	0.773

### 4.3. Convergent Validity

Individual reflective measure is said to be high if it has a correlation of more than 0.70 with the construct to be measured. However, for research in the early stages of developing a measurement scale, a loading value of 0.50 to 0.60 is considered sufficient. Chin in Ghazali (2012).



**Figure 2** Research model

Based on the measurement model above, all indicators are analysis on research variables with a loading factor greater than 0.50 so that it is declared significant or meets the requirements of convergent validity.

### 4.4. Average Variance Extracted (AVE) and Latent Correlation

Another method to assess discriminatory validity is to compare the value of the *square root of average variance extracted* (AVE) of each construct with the correlation between constructs and other constructs in the model. If the value of the square root of the AVE for each construct is greater than the correlation value between constructs and other constructs in the model, then it is said to have a good discriminant validity value. Chin in Ghazali (2012). The results of the AVE test can be seen in Table 1 below

**Table 3.** AVE result

construct	AVE
Internal factors	0.774
Intention To Use	0.580
Perceived Usefulness	0.582
Perceived Ease To Use	0.598

Source: Data Analysis With AVE PLS (2021)

Looking at the AVE value in the table above, all the variables have a value > 0.50 so it can be said that each indicator that has been measured has been able to reflect their respective variables validly

### 4.5. Cronbach's Alpha and Composite Reliability

The next check of convergent validity is construct reliability by looking at the output of composite reliability or Cronbach's Alpha. The criterion said to be reliable is the composite reliability value or Cronbach's Alpha more than 0.70 [15]

**Table 4.** Reliability Test Results and Latent Variables

construct	Cronbach's Alpha	Composite Reliability	Information
Internal factors	0.967	0.972	reliable
Intention To Use	0.820	0.873	reliable

Perceived Usefulness	0.945	0.951	reliable
Perceived Ease To Use	0.955	0.960	reliable

Source: Data analysis with PLS *Path Coefficient Bootstraping* (2021)

**4.6. Evaluation of Inner and Outer Loading Models**

*Bootstrapping* is a statistical resampling procedure or technique. Resampling means that respondents are drawn randomly with replacement, from the original sample many times until Chin's observations in Ghozali (2012). Based on the initial model, it can be said that the

relationship between the latent variable and other variables if it shows a number above 1.96 with an estimated parameter of 95% is declared valid. Furthermore, it is seen how much strength the dependent exogenous and endogenous variables are in this initial model by looking at the magnitude of the R Square value for each of the endogenous variables in table 5 below:

**Table 5. Bootstrapping Test Results**

construct	Original Sample	Sample Mean (M)	Standard Error	T Statistics ( O/STDEV )
Perceived Usefulness -> Perceived Ease To Use	0.654	0.652	0.092	7.107
Perceived Usefulness -> Intention to Use	0.421	0.406	0.139	3.029
Internal Factor-> Perceived Usefulness	0.351	0.365	0.120	2.916
Perceived Ease To Use -> Intention to Use	0.277	0.293	0.132	2.105
Internal Factor-> Perceived Ease To Use	0.109	0.112	0.081	1.345

Source: Data analysis with PLS *Path Coefficient Bootstraping* (2021)

**Table 6. R Square**

construct	R Square
Intention to Use	0.416
Perceived Usefulness	0.123
Perceived Ease To Use	0.490

Source: Data analysis with PLS R-Square (2021)

**4.7. Research Hypothesis Testing**

To determine the stability of the proposed model in a population, look at the value of the relationship between one variable and another or the path coefficient value (*rho*) by looking at the value of O (*original sample*) and the statistical T value as a statement of the significance level of the relationship between one variable. with other variables (the significance level is taken at the 5% error level or is at T above 1.96).

**5. CONCLUSION**

The results of the study found that internal factors, Perceived Usefulness (PU) and Perceived Ease of Use (PE) were partially influential and significant in digital technology in East Java society, but internal factors on Perceived Ease of Use had no influence on digital technology in society. East Java . So in this case there is a need for more socialization to the people of East Java in introducing halal tourism based on digital technology in society.

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