

Perception Index of Halal Tourism in Bangka Belitung with the PCA Method

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Abstract: Sharia Tourism or known as halal tourism is a new way to develop Indonesian tourism that upholds Islamic culture and values. Halal tourism development includes six types of tourism business components, namely, Destinations / Attractions, Hotels, Restaurants, MSME Product Industries, Culture and Public Areas. The purpose of this study was to determine and analyze the perception of tourists towards halal tourism in the Bangka Belitung Islands Province in achieving the World Halal Tourism Award (WHTA). This research is a quantitative research and is explanatory (explanatory research) with the intention of explaining as a whole the object under study within certain limits and measuring the potential of halal tourism based on tourist perceptions with the PCA (Principal Component Analysis) approach. The study uses primary data obtained from questionnaires to respondents as many as 400 tourists when visiting Bangka Island, represented by the City of Pangkalpinang and Belitung Island, represented by the City of Tanjung Pandan. The results showed that 89.25 percent of respondents had a very good perception of the readiness of the province of Bangka Belitung Islands to the World Halal Tourism Award.

1 INTRODUCTION

At present, Muslim tourists get the attention of the world because they have a large share and potential enough for the tourism industry (Sriprasert et al, 2014). Arief (2018) stated that in 2016 there were 2.5 million foreign Muslim tourists who came to Indonesia. Targeted 5 million foreign Muslim tourists will come to Indonesia in 2019 (Ministry of Tourism and Creative Industry, 2018).

Sharia tourism or halal tourism is seen as a new way to develop Indonesian tourism that upholds Islamic culture and values. Sharia Tourism Development or halal tourism includes four types of tourism business components, namely hospitality, restaurants, bureaus or travel, and spa services (Ministry of Tourism and Creative Industries, 2015). The study carried out by the Global Muslim Travel Index (GMTI), stated that Indonesia was ranked 2 (two) as the world's most popular halal tourist

destination. Some areas that are potential as sharia tourism destinations in Indonesia, including Aceh, West Sumatra, Riau, Lampung, Banten, Jakarta, West Java, East Java, Makassar, Yogyakarta and Lombok. While the provinces that have developed the concept of halal tourism are West Nusa Tenggara, West Sumatra and Aceh. The concept of halal tourism carried out by the 3 (three) provinces is the application of a halal certification facility program for tourism industry players (Arief, 2018).

Hamzah and Yudiana (2015) explained that basically Islamic tourism is the same as tourism in general, only this concept will explicitly give some limitations, with the aim of providing comfort for traveling with the concept of sharia. There are 2 (two) basic concepts that need to be understood in discussing sharia tourism. First; the basis of building an Islamic tourism industry in terms of Islamic culture, and secondly the development of the

paradigm of the concept of sharia tourism at destinations or attractions.

The tourism sector has an important role for regional development of the Province of Bangka Belitung Islands, because it is one of the regions in Indonesia that is doing tourism development (RPJMD 2012). In addition to having potential tourist objects, the tourism sector of the Province of Bangka Belitung Islands has been included in the mandate of PP No. 50/2011 and Decree B652 / Seskab / Maritim / 2015.) priority tourist destinations in Indonesia, and one of them is Tanjung Kelayang on Belitung Island. (Ministry of Tourism in D.Valeriani, 2017).

The growth of tourist visits to the Province of Bangka Belitung Islands has increased every year, which was seen in 2016 the number of visits was 347,619 people and in 2017 reached 367,084 people, meaning an increase of 21.72 percent (BPS, 2018). Theoretically it is stated that if there is a tendency to increase the number of tourists, it means that the demand for goods and services will be increased by the tourism sector (Pitana, 2009). The number of tourist visits has not mapped how large the number of Muslim tourists visiting the Province of Bangka Belitung Islands.

Some previous studies have examined the comparison between halal and conventional tourism potential. Hamzah and Yudiana (2015) explained the comparative potential of tourism by describing several government rules and some Islamic Sharia relating to travel activities. Previous studies have not compiled an analysis of halal tourism potential with good analytical techniques. Furthermore, Sriprasert et al (2014) explained that there are several main components in accommodating the needs of Muslim tourists namely; hotels, restaurants and public areas in accordance with Islamic law.

This research using primary data in individual level of respondent. There are 400 respondent spread in Bangka and Belitung Island. Person that could be included in this survey must be tourist from domestic or foreign island. Data will be define with Principle Component Analysis. PCA method could make a rational weighted value according to the characteristic of the data spread in the sample. So PCA could made better analysis than the current research.

The development of the concept of halal tourism can be viewed widely and from various aspects that

support tourism. A. Suherlan (2015) found that a number of sharia tourism variables in Jakarta are still low in performance even though their importance is high. Pertiwi (2011) and Saefudin (2015) explained that, one of the concrete steps in the effort to develop sharia tourism is to design sharia tourism products and destinations, ranging from sharia-based tourist services, lodging, restaurants or restaurants, to religious facilities. Sriprasert et al (2014) and Triana (2017) revealed that to determine the potential of a region's halal tourism, namely by observing several aspects as follows: Tourism Destinations, Cultural Tourism, Hotels, Restaurants, Public Areas and Industrial UMKM products.

2 CONCEPTUAL FRAMEWORK

2.1 Tourism

Some experts argue about the definition of tourism is an activity or human activity that travels temporarily, from the original place of residence to the destination with the reason not to settle or make a living but only to fulfill curiosity, to spend leisure time or holidays and destinations others (Mathieson & Wall, 1982; Deery, Jago, & Fredline, 2012; Burkart, AJ & Medlik, Burkart, Medlik, & others, 1981; Dolnicar & Ring, 2014; Kodhyat., 1998): Wahab, 1982; Rai Utama, 2016: D.Valeriani, 2018). While Yoeti (1998) and Teguh (2016) describe tourism development as a system of linkages between supply and demand components. The demand component consists of domestic and foreign tourists, while the supply component consists of accessibility, tourist attraction objects, facilities and utilities, as well as public attitudes towards tourism.

Gartner (1996) defines tourism in the movement of tourists to a place far away from the neighborhood where they live and or work for a temporary time. French, Craig-Smith, J., & Collier (1995) define tourism: "Tourism is the temporary short-term movement of people to destinations outside the places where they usually live and work, and their activities during their stay at these destinations".

2.2 Halal Tourism

Sharia tourism is an activity that is supported by various facilities and services provided by the community, businessmen, government, and local governments that meet the requirements of sharia (Kemenpar, 2012).

Halal Tourism is one of the tourism systems intended for Muslim tourists whose implementation complies with Sharia rules. Currently the most commonly used terms are 'halal tourism' and 'Islamic tourism'. Some researchers use these terms including Battor, & Bhatti, 2013; Battour, Ismail, & Battor, 2011; Battour, Ismail, Battor, & Awais, 2014; Battour, Ismail, & Battor, 2010; Henderson, 2009; Jafari & Scott, 2014; Stephenson, 2014; Zamani-Farahani & Henderson, 2010).

According to Duman in Akyol & Kiliç, Islamic tourism is defined as "The activities of Muslims traveling to and staying in places outside their usual environment for not more than one consecutive year of participation from Islamic activities which are not related to the exercise of an activity remunerated from within the place visited (Kiliç, 2014).

According to Pavlove in Razzaq, Hall & Prayag, Halal or Islamic tourism is defined as tourism and hospitality which are also created by consumers and producers in accordance with Islamic teachings. Many countries in the Islamic world are utilizing the increasing demand for Muslim friendly tourism services (Razzaq, Hall, & Prayag, 2015). Meanwhile, according to Sapta Nirwandar (2015) in (Achyar, 2015) the existence of halal tourism as an extended service that is mutually coupled with others and can be complementary, or the product itself. For example there is a halal hotel, which means that people looking for hotels that guarantee the halalness of their products will get a wider option.

2.3 World Halal Tourism Award (WHTA)

The World Halal Tourism Award is an award given to halal destinations. The halal destination in question is a complete tourist destination with halal facilities, Muslim tourist friendly tourism (moslem friendly tourism). Examples of criteria that must exist in halal destinations are that it is easy to find mosques, ablution places, hotels have Qibla direction, prayer hours, scriptures, and so forth.

(<http://www.depkop.go.id>).

The World Halal Tourism Award is one of the forms of the application of the 3C formula, that is, first is the Confidence of the Indonesian people (internal). Second is Credible or increasingly trusted by the world community (external). Third is Calibration or closer Indonesia to global standards. (<https://jpp.go.id>).

3 RESEARCH METHODS

3.1 Research sites

The study was carried out in the Province of Bangka Belitung Islands consisting of Bangka Island (Pangkalpinang City) and Belitung Island (Tanjung Pandan City).

3.2 The measured variable

The variables measured in this study consisted of: Destinations / Attractions, Hotels, Restaurants, MSME Product Industries, Culture, and Public Areas.

3.3 Population and Sampling Technique

The population in this study were tourists who visited the Province of Bangka Belitung Islands, which were taken in 2 (two) locations namely Bangka Island and Belitung Island. Sampling in this study uses the Slovin formula (Sevilla et. Al., 1960), as follows:

$$n = \frac{N}{1 + Ne^2}$$

Where n : sampel, N: total population and e: population limit. So the calculation of the sampel is :

$$n = N / (1 + N e^2) = 367.084 / (1 + 367.084 \times 0,05^2) = 367.084 / 918,71 = 399,56 = 400.$$

3.4 Data Collection and Analysis

Techniques Data collection in this study was conducted by questionnaire method which was then

quantitated using the PCA (Principle Component Analysis) method.

3.5 PCA method

Principal Component Analysis (PCA) is a technique that is performed to extract several orthogonal linear combinations from a collection of variables. The combination of orthogonal linearity in a set of variables provides information about the characteristics of the set of variables (Filmer and Pritchett, 2001). Intuitively, principal component analysis is a linear index where the index captures an information from a collection of variables with the highest eigenvalue.

In a collection of variables, there are as many N variables where a_{1j}^* to a_{Nj}^* is the value of an indicator of a perception, in this case the rating of tourists. Principal component starts by specifying each variable that has been normalized by the average value and standard deviation $((a_{1j}^* - a_1^*) / (s_1^*))^2$. The following is a variable formulation formed into a linear combination of a collection of variables for each traveler / respondent j :

$$\begin{aligned} a_{1j} &= v_{11}A_{1j} + v_{12}A_{2j} + \dots + v_{1N}A_{Nj} \\ a_{Nj} &= v_{N1}A_{1j} + v_{N2}A_{2j} + \dots + v_{NN}A_{Nj} \end{aligned} \quad j = 1, \dots, J$$

(1)

Explanation:

J = Tourist / Respondent

$1 \dots N$ = Tourism Aspects (Tourist Destinations, Hotels, Restaurants Industry / Products of SMEs, Cultural Tourism, and Public Areas)

$A_{1j} \dots A_{Nj}$ = perception index of respondents 1 ... j

$v_{11} \dots v_{NN}$ = coefficient of each variable from each respondent

$a_{ij} \dots a_{Nj}$ = value of answer to the respondent j

4 RESULTS

4.1 Description of Characteristics of Respondents

In conducting survey activities, this study divides the distribution of respondents on 2 islands, namely Bangka Island and Belitung Island with the development of each region with 200 respondents.

The main target of respondents is tourists both domestic tourists and foreign tourists who are traveling in several objects scattered on these two islands.

Distribution of questionnaires is carried out evenly and is expected to be able to provide a representation that is appropriate to the tourism conditions of Bangka Belitung in the direction of the World Halal Tourism Award.

In terms of demographic characteristics, 40.5 percent of the sample in the age group is under 25 years old, 48 percent are aged 25 to 40 years and 11.5 percent of the total are over 40 years of age. Gender in Bangka, male is 57 percent and woman is 42 percent. Education The majority of the sample in Bangka is graduated from high school, which is about 72 percent and 28 percent are diplomas and scholars. While people who have worked from the total sample are 33.5 percent and the rest are housewives and students.

In demographic characteristics, in Belitung 48 percent of the sample is under 25 years of age, 36 percent are aged 25 to 40 years and 16 percent of all are over 40 years old. Male gender is 43.5 percent and women are 56 percent. Education The majority of the sample in Bangka is graduated from high school which is around 54.5 percent and 45.5 percent are diplomas and scholars. While people who have worked from the total sample are 34.5 percent and the rest are housewives and students.

4.2 PCA analysis

The use of the PCA method is carried out to provide the appropriate weight for each component of the question regarding perception. Weighting that matches the overall characteristics of the data set will produce an index value that is expected to represent the perception of tourists. Basically this research builds a tourist perception index using the PCA method, so that in the end each respondent has their own perception index value. As shown in table 4. The PCA calculation results in table 6 show that the index value will use the weighting of the comp1 value with the highest eigenvalue value of 4.365. Comp1 is able to explain the overall characteristics of data with a value of 14.55 percent. Therefore the value of comp1 is used as a reference for weighting each element of the question as many as 30 questions with 6 criteria that have been set. Each criterion has 5 questions so that the overall component is 30.

After formulating the perception index value of each respondent, this study makes the distribution of index values based on the intervals that have been formulated. There are 4 index interval formulations that perceive certain categories of perception including: very bad, bad, good and very good.

Table 4: PCA output

Principal components/correlation		Number of obs =	400
		Number of comp. =	30
		Trace =	30
Rotation: (unrotated = principal)		Rho =	1.0000

Component	Eigenvalue	Difference	Proportion	Cumulative
Comp1	4.36564	1.77404	0.1455	0.1455
Comp2	2.5916	.600439	0.0864	0.2319
Comp3	1.99116	.0410288	0.0664	0.2983
Comp4	1.95013	.316573	0.0650	0.3633
Comp5	1.63356	.235095	0.0545	0.4177
Comp6	1.39847	.0475132	0.0466	0.4644
Comp7	1.35095	.13145	0.0450	0.5094
Comp8	1.2195	.0586711	0.0407	0.5500
Comp9	1.16083	.0999416	0.0387	0.5887
Comp10	1.06089	.102941	0.0354	0.6241
Comp11	.957949	.0351054	0.0319	0.6560
Comp12	.922843	.0572265	0.0308	0.6868
Comp13	.865617	.0365389	0.0289	0.7156
Comp14	.829078	.0840552	0.0276	0.7433
Comp15	.745023	.0555563	0.0248	0.7681
Comp16	.689467	.0170368	0.0230	0.7911
Comp17	.67243	.0893622	0.0224	0.8135
Comp18	.583067	.0180881	0.0194	0.8329
Comp19	.564979	.0103717	0.0188	0.8518
Comp20	.554608	.0182314	0.0185	0.8703
Comp21	.536376	.0554229	0.0179	0.8881
Comp22	.480953	.0239512	0.0160	0.9042
Comp23	.457002	.0130316	0.0152	0.9194
Comp24	.443971	.017328	0.0148	0.9342
Comp25	.426643	.0274547	0.0142	0.9484
Comp26	.399188	.0532585	0.0133	0.9617
Comp27	.34593	.0493067	0.0115	0.9733
Comp28	.296623	.0311032	0.0099	0.9831
Comp29	.26552	.0255266	0.0089	0.9920
Comp30	.239993	.	0.0080	1.0000

Source: processed data, 2018

Based on the results of data processing using PCA, the following categories are obtained:

Table 5: WHTA Readiness Perception

Perception	Bangka	Belitung	Total
bad	1	2	3
good	6	34	40
very good	193	164	357
Total	200	200	200

Source: processed data, 2018

The results of the analysis showed that out of 400 respondents in Bangka Belitung, 3 respondents stated that the readiness of Bangka Belitung was still perceived as poor, 40 respondents perceived it good

and as many as 357 respondents perceived it very good.

This is an indication that perceptively, Bangka Belitung has provided excellent accommodation for tourists, especially in its facilities to support halal tourism. 89 percent of tourists have a very good perception on the 6 indicators that have been determined by this study. So that gives an indication that Bangka Belitung already has public places, MSMEs, restaurants, tourism objects and culture that are conducive for tourists who want to access sharia products and activities.

4.3 Perception of Respondents based on Island

4.3.1 Perception of Bangka Island Respondents

This research divides the area of tourism into two places, namely Bangka and Belitung Islands. Bangka Island is represented by Pangkalpinang City and Belitung Island represented by Tanjung Pandan City.

Table 6 :Tourist Perception of Bangka Island

Perception	Freq	Percent	cum
bad	3	0,75	0,75
good	40	10,00	10,75
very good	375	89,25	100
Total	200	200	100

Source: processed data, 2018

The results of the analysis showed that the level of respondents' perceptions in the two regions did not differ significantly. Tourists as a whole have a very good perception of the tourism potential of Bangka Belitung in going to WHTA. But in terms of preparation, the Bangka region was perceived better with 193 respondents (96.5%) perceiving very good.

4.3.2 Perception of Belitung Island Respondents

Tabulation results in Belitung show good numbers. The results show that 82 percent of tourists perceive that the readiness of Belitung island to go to WHTA

is very good, 17 percent perceive it well and only 1 percent perceive it badly.

Table 7 : Perception of respondents in Belitung Island

Perception	Freq	Percent	cum
bad	2	1,00	1,00
good	34	17,00	18,00
very good	164	82,00	100
Total	200	200	100

Source: data processed, 2018

So far Belitung Island has progressed quite rapidly in the development of its infrastructure to support tourism. Airport renovations to the construction of hotels make public perceptions continue to improve regarding the readiness of Belitung island in facing WHTA.

5 CONCLUSION

This research would like to identify the perception of tourists in Bangka Belitung regarding their readiness to go to the World Halal Tourism Award. Using the Principle Component Analysis method, this study builds a perception index of each respondent and compiles the index value so that it is divided into 4 categories of perception based on its quality.

The calculation results show that of the 6 aspects determined Bangka Belitung tourism is perceived very good by 89.25 percent of respondents spread across the islands of Bangka and Belitung. Furthermore, 10 percent have good perceptions and only 0.75 percent have a bad perception of the readiness of the Bangka Belitung Islands province towards the World Halal Tourism Award (WHTA). The results of this study may contribute to the relevant stakeholders, especially for the provincial government of Bangka Belitung Islands in formulating strategies for preparing Bangka Belitung as one of the halal tourism destinations in Indonesia.

This research have gave the new quantitative method to build the perception index of tourist in Bangka Belitung region. In the future, may be there another ways to calculating the perception of respondent. We hope there's are new method can analyze better that could make us better understanding about this study.

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