

# CONSUMER PREFERENCES TOWARD MARINE TOURISM AREA

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## ABSTRACT

*The marine zone tourism is growing attracting more tourists. Pramuka Island is marine conservation area enriched with marine biodiversity in coral reefs and other natural resources. To develop this potential tourist destination, a customer-based marketing program is required to attract domestic and foreign tourists. The main vision is to understand tourist preferences for marine tourism activities and facilities. A research was conducted on Pramuka Island as a well-known marine tourism zone. The objective was to determine the key tourist preferences for marine tourism destination. Research methods utilized Cochran Q test and Conjoint analysis where the primary data were obtained from tourist respondents. The result showed that there was a tourist preference based on the five attributes considered most important, namely tourism activities, tourist attractions, types of accommodation, food and souvenirs types. This study provided marine tourism destination management with useful guidance for broader implications of the implementation of marketing programs and tourism attraction. Moreover, the results of this study consolidated the learning of a variety of academic and industrial research papers in particular for the measurement of customer preferences towards marine tourism destination.*

**Keywords:** *tourism marketing, tourist preferences, marine tourism destination, conjoint analysis*

## ABSTRAK

*Pariwisata bahari terus berkembang menarik wisatawan. Salah satu contohnya adalah objek wisata Pulau Pramuka sebagai kawasan konservasi alam dengan biodiversitas laut yang unik, terumbu karang, dan potensi alam lainnya. Untuk mengembangkan tujuan wisata potensial ini, program pemasaran berbasis pelanggan diperlukan untuk menarik wisatawan domestik dan mancanegara. Visi utama pemasaran adalah untuk memahami preferensi wisatawan terhadap kegiatan wisata bahari dan fasilitasnya. Penelitian dilakukan terhadap pulau pramuka sebagai salah satu zona pariwisata bahari yang cukup yang cukup terkenal. Tujuannya adalah untuk mengetahui kunci preferensi wisatawan terhadap destinasi wisata bahari. Metode penelitian menggunakan Cochran Q Test dan analisis Conjoint di mana data primer diperoleh dari responden wisatawan. Hasilnya menunjukkan bahwa ada preferensi wisatawan berdasarkan lima atribut yang dianggap paling penting, yaitu kegiatan wisata, atraksi wisata, jenis akomodasi, makanan dan jenis souvenir. Penelitian ini memberikan pengaturan tujuan wisata bahari dengan panduan yang berguna pada implikasi yang lebih luas dari pelaksanaan program pemasaran dan daya tarik pariwisata. Tambahan lagi, hasil penelitian ini mengkonsolidasikan pembelajaran dari berbagai makalah penelitian akademik dan industri khususnya untuk pengukuran preferensi pelanggan terhadap destinasi wisata bahari.*

**Kata kunci:** *pemasaran pariwisata, preferensi wisata, destinasi wisata bahari, analisis conjoint*

## INTRODUCTION

Tourism has become one of the world's largest industries that produces 6.6% of the GNP around the world, and hires 7% of the labor force around the world (UNWTO, 2011). The world's tourism grows 2% per year. Indonesia's tourism grows about 12% per year (Renstra Kemenbudpar, 2010). It is larger than the growth of the national economy that is only 6.5% to 8%. Tourism growth certainly implies on other tourist businesses, namely hospitality, recreation, travel agency services, and restaurant that are located in the tourist area (Aryanto, 2008).

Many authors in the marketing area have considered the phenomena of tourism marketing. In marketing science, the concept of modeling consumer preferences among multi-attribute alternatives has received extensive attention. One of marketing consideration is consumer research influenced by the assumptions of microeconomics and its notion of revealed preference. From this perspective, Cho and Song (2008) stated that consumers know what they like and want, and their preferences are revealed in the choices they make. In contrast, a large body of psychological research indicates that consumers' preferences are highly malleable and often constructed on the spot (Griffin, Liu and Kahn, 2005). Base on this perspective, preferences are driven by the information and tourism destination experiences at the time of judgment choice. The marketer's aim is to characterize a product tools like in this research is marine tourism destination into a bundle of attributes and assign levels for each attribute.

Marketing scope of tourism includes finding what the consumer wants (market research), to develop appropriate delivery of services (product planning) for tourists' notification of the products made (advertising and promotion) and to provide information about where tourists can get the products (channels of distribution, tour operator and travel agent) (Marpaung 2002).

Therefore, marketers need to understand the consumer behavior. The behavior of tourists is the key support of all marketing activity undertaken for the development, promotion and selling tourism products and processes to learn why people buy the products they buy and how to make a decision (Swarbrooke and Horner, 2007). One of the most important destination tourists' behaviors studies is visitor preferences research. Preference is an attitude more like something other objects rather than objects (Chaplin, 2002). Consumer preferences indicate consumer preferences from a wide selection of products available (Kotler, 2003). Meanwhile, Burkat and Medlik in Oka A. Yoeti (2009) state that product of the tourism industry is a composition comprising a mixture of products: tourist attractions, transport, accommodation and entertainment.

Being an archipelagic country, Indonesia has adopted this concept within two Indonesian cooperation laws intended to enable the Indonesian government to manage the coastal areas more responsibly and accountably. The objective is to improve the environment for future generations. However, the implementation has not been successful. The government's focus prefers on the land-based development to the coastal and marine management (Farhan and Lim, 2012).

The Pramuka Island is an example of marine tourism destination located in Thousand Islands National Park (TNKpS). In 2011 Pramuka Island reached 51.493 tourists (BPS, 2012). Until now, the marine tourism providers have accommodated tourism attractions by following the example of what have done on other places. Therefore, it is necessary to manage visitor characteristics and their preferences in comparison with the availability tourism attractions, activities and facilities.

First, it is necessary to recognize tourists' favorite attributes of tourism products. Kadampully (2002) states that the developing a tourism program should comprise a variety of elements such as

accommodation, food & beverage and entertainment. Second is creating excellent tourism programs to invite tourists in designing activities and facilities according to they want and preferences.

We use a technique known as conjoint analysis to obtain the numerical values of the product. Conjoint analysis is a popular marketing research technique that breaks down attributes to derive the part-worth associated with each level of a product based on the overall preferences of choice alternatives by a group of respondents (Reutterer and Kotzab, 2000). Conjoint analysis is a very powerful method to help get the combination or composition of the attributes of a product or service, both new and old are most preferred by consumers (Green, et al., 2007).

## **METHOD**

The research was developed descriptively, which gathered information on the status of existing indications (Arikunto, 2005). The purpose of the descriptive research is to make the explanation in a systematic, factual, and accurate about the facts and the nature of the population or specific areas. We divided the questionnaire into two phases. On phase 1, we randomly distributed the questionnaire to community members known to be to Pramuka Island. On phase 2, we distributed the questionnaire directly to the visitors of Pramuka Island on January 2012.

We used non-probability sampling and purposive convenience sampling (Sugiyono, 2006). Convenience sampling is a method of sample selection based on convenience. The sample was from BPS thousand islands population number of tourists visiting the area of Thousand Islands, which was 102.069 per year or 2126.44 per week. The total population size of the sample can be determined use formula Slovin with the level of inaccuracy allowances by 10% (Umar, 2004), and then we obtained 96 respondents.

We used multivariate analysis for data analysis techniques. Multivariate analysis measures purposes, as well as explains and predicts the level of relations between the variants. The observation did not only involve multivariate characters on a number of variables, but also multiple combinations between variance (Simamora, 2005). We used two methods of analysis techniques. The first was Cochran Q Test Analysis and the second was Conjoint Analysis. Joseph f. Hair (2006) said that conjoint analysis could use a minimum of 50 respondents to get the preference in the desire by the consumer. We begin the analysis with descriptive statistics analysis to obtain a profile of respondents. Then we processed the data using Cochran analysis for validity test, which aimed to determine the attributes considered by consumers in the purchase of tourism products. We used conjoint analysis to determine consumer preferences for tourism products.

## **RESULTS AND DISCUSSION**

We obtain 96 respondents by primary survey on January 2012. Figure 1 showed their demographic characteristics. 58% of the respondents was men while women were 42%. 75% of them lived in Jakarta and 25% of them lived in other areas. About 49% of the respondents was high-school graduates and others had diploma and university level. 46% of the respondents was between 21 and 25 years old and 24% of them was 20 years or bellow, that proved youth tourist were dominant.

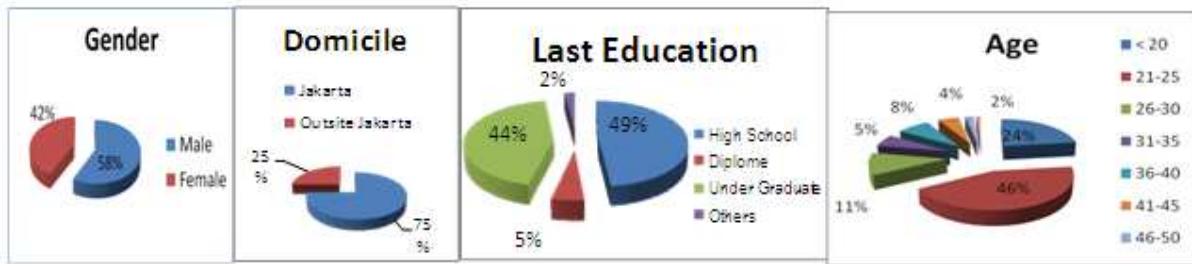


Figure 1 Respondent profile demographic characteristics

## Cochran Q Test Analysis

After doing data collection from questionnaire, we performed the Cochran test to evaluate the right attributes to be selected for the analysis next. Testing the validity of the attributes by using the Cochran Q test was performed by spreading an online questionnaire to 20 respondents. The result of Cochran's analysis using SPSS software was on Table 1:

Table 1 Result of Product Attributes in Tourism

No	Attribute
1	Natural Attractions
2	Marine Tourism Activities
3	Type of Accommodation
4	Location of Accommodation
5	Accommodation Facilities
6	Type of Transportation
7	Volume of Transportation
8	Variety of food
9	View of Restaurant
10	Type of souvenir
11	Location of souvenir store

## Conjoint Analysis Test in Aggregate

Based on the analysis in general of the attributes of accessibility and tourism attractions in table above, we identified the importance of attributes and attribute levels of accessibility and tourism attractions preferred by respondents. For tourist activities (34,38%), in general respondents preferred canoeing (0.183) to other tourist activities. For tourism attraction (26,75%), they preferred conservation (0.067), followed by enjoying the landscape (0.063), and the last was seeing flora and fauna (-0.130). For volume of transportation (25,56%), in general they preferred small-sized transportation (0.109) compared with the large or medium sized. For type of transportation (13,32%), in general respondents preferred speedboat (value of 0.043) to boat. The detailed results were on Table 2 below.

Table 2 Results of conjoint analysis in aggregate (Card A)

Attributes	Levels	Utility Estimate	Importance Values (%)
<b>Type of Transportation</b>	Boat	-0,043	13,32
	Speedboat	0,043	
<b>Volume of Transportation</b>	Small	0,109	25,56
	Medium	-0,203	
	Large	0,094	
<b>Tourism attraction</b>	landscape	0,063	26,75
	Flora Fauna	-0,130	
	Conservation	0,067	
<b>Tourist Activities</b>	Snorkeling	0,088	34,38
	Fishing	-0,033	
	Canoeing	0,183	
	Fishery Tourism	-0,238	

Based on the analysis in general of the attributes of tourism amenities in table above, know the importance of attributes and attribute levels of tourism amenities are preferred by tourists, the results are: For variety of food (19,21%), in general respondents preferred sea food (0.270) to other food choices. For type of accommodation (18,65%), in general respondents preferred home stay (0.074) to motel and cottage. For type of souvenir (14,79%), in general respondents preferred buying traditional food (0.167) to handicrafts. For location of accommodation (13,44%), in general respondents preferred accommodations that were far from the ocean (0.146). For view of restaurant (11,75%), in general respondents preferred standard theme (0.119) to attractive ones. For accommodation facilities (11,45%), in general respondents preferred the standard facilities (0.044). For location of souvenir store (10,70%), in general respondents preferred souvenir stores located around the dock (value 0.059) than those located near the inn. The detailed results were on Table 3.

Table 3 Results of conjoint analysis in aggregate (Card B)

Attributes	Levels	Utility Estimate	Importance Values (%)
<b>Type of Accommodation</b>	Motel	-0,030	18,65
	Home Stay	0,074	
	Cottage	-0,043	
<b>Location of Accommodation</b>	Near the ocean	-0,146	13,44
	Away from the ocean	0,146	
<b>Accommodation Facilities</b>	Luxury	-0,044	11,45
	Standard	0,044	
<b>Variety of food</b>	Various	-0,270	19,21
	Sea food	0,270	
<b>View of Restaurant</b>	Attractive	-0,119	11,75
	Standard	0,119	
<b>Type of souvenir</b>	Craft	-0,167	14,79
	Traditional food	0,167	
<b>Location of souvenir store</b>	Around the dock	0,059	10,70
	Near the inn	-0,059	

## Conjoint Analysis Results Base on Motivation Segmentation

After analyzing the preferences of the respondents in general, we analyzed respondents' preferences based on the interest of tourists on the tourism product. Determination of target market in this research referred to the preference patterns of a group or segment. In this pattern pointed out the preference groups called natural market segments. Marketers can develop tourism products based on groups of tourist accordance with the preference groups.

Table 4 Profile of Accessibility & tourism attractions base on the motivation of tourist

The motivation of tourist	Characteristics of Accessibility & tourism attractions
<b>Physical</b>	Speedboat
	Large
	Landscape
	Canoe
<b>Cultural</b>	Speedboat
	Small
	Conservation
	Canoe
<b>Personal</b>	Speedboat
	Small
	Landscape
	Canoe
<b>Emotional</b>	Speedboat
	Small
	Conservation
	Snorkeling

## Targeting of Accessibility and Tourism Attractions

Due to similarities on tourists' preferences toward the accessibility & attraction of tourism products, we could develop the tourism products for all segments of tourists into two groups as shown of Figure 2 below. Meanwhile, tourist profiles based on their amenities motivation of tourist were classified on Table 5.

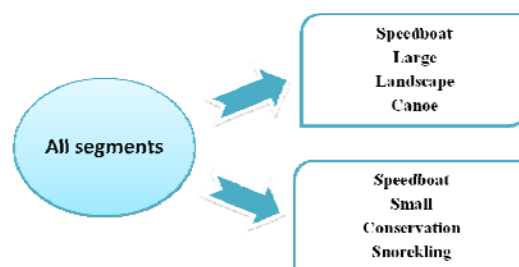


Figure 2 Determination of Target tourists to Accessibility & tourism attractions

Table 5 Tourist Profiles Based on the Amenities Motivation

The motivation of tourist	Characteristics of Tourism Amenities	
<b>Physical, Cultural</b>	Type of Accommodation	Home Stay

<b>Emotional</b>	Location of Accommodation	Far from the ocean
	Accommodation Facilities	Stantard
	Variety of food	Sea food
	View of Restaurant	Standard
	Type of souvenir	Traditional foods
	Location of souvenir store	Around the dock
	<b>Personal</b>	Type of Accommodation
Location of Accommodation		Far from the ocean
Accommodation Facilities		Luxury
Variety of food		Sea food
View of Restaurant		Standard
Type of souvenir		Handicraft
Location of souvenir store		Around the dock

### Targeting Tourism Amenities

Similar to the preferences on accessibility & tourism attractions, there is also similarity of tourist preferences on the tourism amenities. They were developed into two groups below (Figure 3).

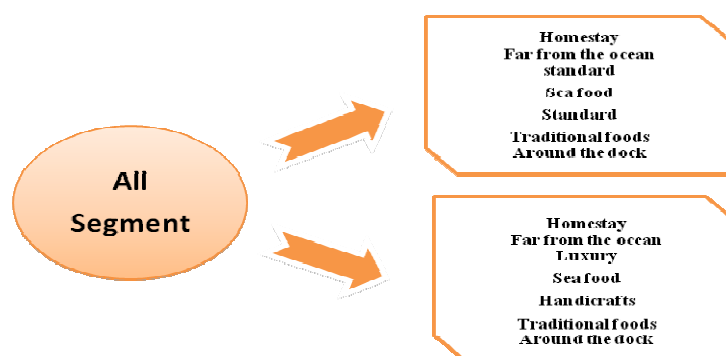


Figure 3 Determination of Target (Targeting) tourists to tourism amenities

## CONCLUSSIONS

Based on the analyses results, we concluded several points below:

Attributes of accessibility and tourism attraction that influenced tourists' preference to make decision in tourist visit in sequence were: (1) tourist activity; (2) tourism attraction; (3) volume of transportation; (4) type of transportation.

Attributes of tourism amenities that influenced preference of tourist to making decision in tourist visit in sequence were: (1) variety of food; (2) type of accommodation; (3) type of souvenir; (4) location of accommodation; (5) view of restaurant; (6) accommodation facilities; (7) location of souvenir store.

Differences in tourists' preferences could be determined on the characteristics of accessibility & tourism attractions based on different motivations of visit. Differences in preferences of tourist

could also be determined on the characteristics of tourism amenities based on different motivations of visit. However, there were similar in preferences of tourism amenities from 3 segments.

Based on the offer data Cochran Q Test, providers should have creative ideas of 11 attributes to be considered in purchase of tourism products, namely: type of transportation, volume transportation, tourism attraction, tourist activities, type of accommodation, location of accommodation, accommodation facilities, variety of food, view from restaurant, location of souvenir store and type of souvenir.

The first syntax of conjoint analysis recommended 5 attributes considered the most important on tourism products, namely: tourist activities, tourism attraction, type of accommodation, variety of food and type of souvenir.

Based on the conjoint analysis results, providers should have a sense of a combination of attributes products that were important and favored by tourists. The value interests and preference attributes products of tourist attraction can be used as the basis in making planning of the sights in Pramuka Island to get actual marine tourist targets.

## REFERENCES

- Aryanto, R. (2008). Memenangkan persaingan pemasaran antar akomodasi pariwisata di kepulauan seribu. *Jurnal Sains Kepariwisata & Pengetahuan Umum*, 6 (3), 1 – 12.
- Arikunto, Suharsimi. (2005). *Managemen Penelitian* (7<sup>th</sup> ed.). Jakarta: Rineka Cipta.
- BPS (2012). *Statistik Daerah Kepulauan Seribu 2012*. Jakarta: BPS Kabupaten Kepulauan Seribu.
- Cho H., Schwarz H., and Song H. (2008). *Images and Preferences. Visual Marketing: From Attention to Action*. New York: Lawrence Erlbaum Associates and Taylor & Francis Group.
- Chaplin, JP. (2002). *Kamus Lengkap Psikologi* (5<sup>th</sup> ed.) (terj. Kartini Kartono). Jakarta: PT. Raja Grafindo Persada.
- Farhan A.R., and Lim S. (2012). Vulnerability assessment of ecological conditions in Seribu Islands, Indonesia. *Journal of Ocean & Coastal Management*, 65.
- Griffin D., Liu W., and Kahn U. (2005). A new look at constructed choice processes. *Marketing Letters*, 16(3/4), 321–333.
- Green P.E., Krieger A.M., and Wind Y.J. (2001) Thirty years of conjoint analysis: reflections and prospect. *Interface Journal*, 31(3).
- Hair Jr., Joseph F., et al., (2006). *Multivariate Data Analysis* (6<sup>th</sup> ed.). New Jersey: Prentice-Hall.
- Kadampully, Jay. (2002). *Service Management (the new paradigm in hospitality)*. Australia: Pearson Education.
- Kotler, Philip. (2003). *Marketing management* (11th ed). New Jersey: Prentice Hall.
- Marpaung, H. (2000). *Pengetahuan Kepariwisata*. Bandung: Alfabeta.



- Renstra Kemenbudpar (2010). *Peraturan Menteri Kebudayaan dan Pariwisata. No. Pm.105/Um.001/Mkp/2010*. Jakarta: Kemenbudpar.
- Reutterer T., and Kotzab H.W. (2000). The use of conjoint analysis for measuring preferences in supply chain design. *Industrial Marketing Management*, 29, 27-35.
- Simamora, Bilson. (2002). *Panduan Riset Perilaku Konsumen*. Jakarta: Gramedia.
- Swarbrooke, J., & Horner, Susan. (2007). *Consumer behaviour in tourism*. London: Buterworth-Heinemann.
- Sugiyono. (2006). *Business Research Methods*. Alfabeta. Bandung.
- Simamora, B. (2005). *Marketing Multivariate Analysis*. Gramedia Pustaka Utama. Jakarta
- Umar, Husein. (2004). *Metode Penelitian Untuk Skripsi Dan Tesis Bisnis (6<sup>th</sup> ed.)*. Jakarta: Gramedia.
- UNWTO. (2011). *UNWTO Tourism Highlights 2011*. Accessed from [www.unwto.org/facts](http://www.unwto.org/facts).
- Yoeti, O. A. (2009). *Pengantar Ilmu Pariwisata*. Bandung: Angkasa offset.