



# **Analysis of Green Marketing Mix Factors On Hotel Industry (Study on Sintesa Peninsula Hotel Manado; Discovery Kartika Plaza Denpasar; Hyatt Regency Yogyakarta; Grand Melia Jakarta)**

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## **ABSTRACT**

The tourism and hotel sectors generally have the potential to have a negative impact on the environment, welfare and socio-culture of local communities, especially if the construction of these hotels does not follow the green building architecture. This study aims to identify and analyze the factors of green marketing mix in hospitality service industry using 7 P (Product, Price, Promotion, Place, Physical Evidence, Process and People) Concept. Based on various researches, the seven elements are adopted into green marketing concept known as Green 7P. This research uses Confirmation Factor Analysis method, which is a factor analysis technique where a priori based on known theory and concept, understood or determined previously developed a number of factors and variables with the aim to get new variable or factor representing some item or sub-variable, which is an observable variable. The results of factor analysis of 32 manifest variables (sub variables) measured resulted in 24 new indicators that can be used to observe and measure green marketing mix factors (green 7P), Green Product: (1) Recycled water; (2) Recycled paper; (3) Organic and non-organic waste bins; (4) award (Award). Green price: Competitive tariff. Green place: (1) Easy to reach; (2) cleanliness; (3) convenience. Green promotion: (1) Environmental-themed ads; (2) environmental programs involving the community. Green physical evidence: (1) Green building design; (2) magnetic card key; (3) water fixtures (water saving); (4) WWTP; (5) automatic hand-dryer (electricity saving); (6) green park. Green process: (1) Energy-saving policy; (2) centralized electricity system; (3) There is waste treatment; (4) paperless office; (5) 3R policy (reduce, reuse, recycle). Green people: (1) Guest participation on green behavior (not smoking in any place, saving electricity/water); (2) hospitality of hotel employees; (3) training.

**Keywords:** Green Marketing, Green Marketing Mix, Hotel Industry

**JEL Classification:** M31

## **1. INTRODUCTION**

Hotel is an industry supporting the tourism sector. The hotel is a type of accommodation, using part or all of the existing buildings, providing various facilities, restaurants, rooms, gyms, entertainment and so on publicly available, and commercially managed (Alma, 2008. p. 289). Developments in the rapidly growing hotel industry have resulted in intense competition in an effort to attract guests to stay and to make use of the facilities

available at the hotel. In this case, the company is required to appear more competitive in selling its services.

Hotel management is required to continuously develop themselves in order to create a sustainable that can acquire potential customers, where most come from business circles. As with other sectors, in general the tourism and hotel sectors have the potential to negatively impact the environment, welfare and socio-culture of local communities, especially if the construction of these hotels

does not follow the green building architecture. Therefore, efforts are needed to create sustainable tourism, not merely controlling or managing the negative impacts of the tourism industry. On the other hand, in fact the hotel industry has the potential or opportunity to be part of the prosperity of society as a form of social responsibility while presenting challenges and threats to local communities and the environment. Thus, the concept of sustainable development through green marketing strategy (green marketing) be an option to ensure the balance of economic benefits with environmental protection and socio-cultural aspects of society and positioning the hospitality industry is no longer the industry that pollute or even damage the environment but on the contrary is an industry that considers environmental, economic and social conservation so as to contribute in realizing sustainable tourism (sustainable tourism).

Green marketing is all activities planned to create and facilitate all interactions that are intended to satisfy human needs or desires, such as satisfaction of their desires and needs for environmental concerns, with minimal destructive effects on the environment (Shamsuddoha, 2004).

This study aims to identify and analyze the factors of green marketing mix in hospitality service industry using 7 P (product, price, promotion, place, physical evidence, process and people) concept.

## 2. LITERATURE REVIEW

### 2.1. The Concept of Green Marketing

Green marketing (green marketing) began to emerge in the late 80s. This is marked by new thinking in the world of marketing by John Grant in his book "The Green Marketing Manifesto" which makes the business world more sensitive to the environment. The American Marketing Association defines green marketing as a market dynamic and includes a change in the orientation of more green consumer behavior that encourages marketers in the latest ways to market their products through a responsible approach and environmentally friendly. Green marketing is any activity designed to generally facilitate change to satisfy human needs or wants, by minimizing the impact on the natural environment (Grundey et al., 2008). Green marketing studies the positive and negative impacts of marketing activities on pollution, energy depletion and the depletion of non-energy resources so that all activities designed to produce and facilitate all expected changes satisfy human needs and wants, with minimal impact on the destruction of the natural environment (Polonsky, 1995). From an organizational point of view, environmental considerations should be integrated into all aspects of marketing including communication and new product development, all of which must satisfy two goals: Improving the quality of the environment and satisfying the consumer (Ottman et al., 2006).

Green marketing as a holistic management process responsible for identifying, anticipating and satisfying the desires of consumers and society in a profitable and sustainable way (Karna et al., 2001). So, green marketing can be interpreted as a corporate activity that incorporates aspects of the environment in its marketing

activities. Green marketing manipulates the four elements of the marketing mix (product, price, promotion, and distribution) to sell the product and seven elements for the services offered from the advantages of environmental maintenance advantages formed from waste reduction, increased efficiency energy, and reduction of toxic gas emissions from the production process. According to Bansal and Kendal (2000) the drivers of companies to pay more attention to the environment are legislation, stakeholder pressures, economic opportunities and ethical motives. Meanwhile, according to Polonsky (1995) there are five factors for organizations or companies to apply the concept of green marketing, namely: (1) The concept of green marketing is used to take advantage of opportunities in achieving its goals. (2) The organization has a moral obligation to be more accountable social. (3) Government regulations regulate companies to be more environmentally responsible. (4) Environmental activities carried out by other organizations/companies force the company to change its marketing activities. (5) Cost factors associated with waste disposal, or reducing the use of materials that make companies change their behavior.

Green marketing has been done by many companies in Indonesia in various forms, namely green-input, green-process, and green-output as well as all matters relating to environmental saving by the company. Cravens et al. (2000) and Straughan and Roberts (1999) suggest that the concept of green marketing when used as a business strategy, it is a potential strategy as a business strategy and has been used as a pivot of successful marketing strategies.

### 2.2. The Concept of Green Marketing Mix

Marketing mix (marketing mix) is one tool marketing strategy to achieve corporate goals. In the manufacturing industry there are 4P (products, price, place and promotion) as elements of product marketing mix (McCarthy, 1997). While the marketing mix in the service industry is known as 7P, (product, price, place, promotion, physical evidence, process and people (Zeithaml et al., 2010). Based on various research, the seven elements are adopted into green marketing concept known as Green 7P's. Incorporating the elements of green marketing mix in the business strategy planning process often creates problems within the company, as environmental policies are treated only in addition to not being fully integrated into a strategic plan (Abror, 2011).

In this study the seven mix of green marketing (Green 7P's) adopted to be integrated into the operationalization of the green hotel to identify elements of green marketing mix strategy developers, are follows:

1. Green product/service. Green products/services are environmentally friendly products, while green consumers are defined as consumers who buy products preferring to buy from companies with environmental responsibility (Johri and Sahasakmontri, 1998). For service products contains characteristics such as: The production process uses energy efficient and does not cause excessive pollution and certified (Herbig, 2002).
2. Green price. Pricing on green products should emphasize the application of prices that take into account the economic costs and environmental costs of production and marketing

processes, while providing customers with value and a reasonable profit for the business (Martin and Schouten, 2012), for example combining product costs from research to disposal so as to help determine prices for sustainability-oriented products (Menon and Menon, 1997; Shrivastava, 1995).

3. Green place. For hospitality services, when the service is delivered directly consumed by many people, then the need for adequate, convenient and safe service delivery, both indoor and outdoor are absolutely essential. Therefore, the layout of places or locations of hotel facilities should be easy to reach, clean and comfortable and equipped with green theme so as to provide maximum satisfaction for hotel guests (Godfrey, 1998; Martin et al., 2012).
4. Green Promotion. Green promotion programs should be able to reflect communications that can inform stakeholders about the effort company, commitment, and achievement towards environmental conservation (Belz et al., 2009; Dahlstrom, 2011). For example environmental attractiveness ads and environmental claims, publication of environmental impact reduction efforts, and incorporating environmental claims on product packaging (Banerjee, 1999; Menon and Menon, 1997).
5. Green Physical Evidence. Because the hospitality services are intangible, the hotel management should be able to visualize the services through visible physical evidence, perceived as having environmentally friendly features such as hotel buildings, offices, green design gardens, including supporting equipment little pollution, not wasteful energy (Prakash, 2002).
6. Green Process. Operational procedures need to adapt to the use of energy efficient operational equipment and produce little greenhouse gas emissions. Besides, in the context of sustainability, hotel management is also required to have a mechanism for reducing the use of resources (water and electricity), such as recycling of waste water for reuse as a sprinkler of plants and toilets, reduction of paper waste production, etc., (reduce).
7. Green people. All actors who play a role and are directly involved in the presentation of services (Zeithaml et al., 2010), consisting of employees/service personnel themselves and consumers and the general public within the service environment are delivered, where their behavior in the service interaction is professional, ethical and has no impact on environmental sustainability (Prakash, 2002).

### 3. RESEARCH METHODS

#### 3.1. Research Sites

This study takes place in 4 and 5 star hotels at 4 six different locations. The reason for choosing the location is that the selected area is a globally recognized tourist destination, Manado (Bunaken Island); Denpasar Bali (Kuta); Yogyakarta (Borobudur); and Jakarta (State Capital) and also as the Winner of National Green Hotel Award, 2011-2013. Those hotels are: (1) Sintesa Peninsula Hotel, Manado (4 stars); (2) Kartika Plaza, Denpasar (Winner of National Green Hotel Award, 2011); (3) Hyatt Regency, Yogyakarta (Winner of National Green Hotel Award, 2013); (4) Grand Melia, Jakarta (Winner of National Green Hotel Award, 2011-2013).

#### 3.2. Sampling Methods and Data

According to Santoso (2010), the number of samples recommended on factor analysis is between 50 and 100. The population is all guests who stayed at the four research hotels during the sample sampling period (July 2017). Based on data acquisition, the number of guests at the time of data collecting are as follows: Hyatt Regency Yogyakarta 154 guests, Discovery Kartika Plaza Kuta Bali 210 guests, Gran Melia Jakarta 202 guests and Sintesa Peninsula Manado 150 guests. The total population is 657 guests.

In this study the guest to be sampled is assumed to be homogeneous (based on the purpose of staying at the hotel) and spread throughout the population. So to get representative sample used random sampling method or simple random sample. The sample size can be determined using the Slovin formula, namely:

Description:  $n$  = Sample size;

$N$  = Population size;

$e$  = Percentage of intolerable sampling error ( $e = 10\%$ ).

Respondents are guests staying at all four hotels (Hyatt Regency Hotel Yogyakarta, Discovery Kartika Plaza Kuta Bali, Sintesa Peninsula Hotel Manado and Gran Melia Jakarta. By entering the number of guests staying on the date of sampling in each hotel into the Slovin formula above, the following sample quantities are obtained: Hyatt Regency Hotel Yogyakarta 61 samples; Discovery Kartika Plaza Kuta Bali 67 samples, Sintesa Peninsula Hotel Manado 48 samples and Gran Melia Jakarta 67 samples. The total sample collected was 243 samples. In order to minimize the error factor of content and ensure the adequacy of the questionnaire that will return after the dissemination, the questionnaire distributed to the respondents amounted to 500 sets of questionnaires proportionately.

Since for the purposes of this study required research data based on the perception of the stakeholders of Sam Ratulangi International Airport Manado, the method of data collection used is by filling the structured questionnaire, where the instrument (item) question developed from the operationalization of the variables studied. The scale of the instrument used Likert scale. The answers to these questions consist of five levels: "Strongly agree," "agree," "quite-agree," "disagree," "strongly disagree." The five assessments are scored as follows: (1) The answer "strongly agree" is given a score of 5; (2) Answer "agree" score 4; (3) Answer "quite agree" score 3; (4) The answer "disagree" 2; (5) Answer "strongly disagree" score 1.

#### 3.3. Operationalization of Research Variables

Based on the above conceptual study, the variables in this study were built to form green marketing factors in the hospitality industry consisting of seven factors, i.e., product, price, place, promotion, physical evidence, process and people Zeithaml et al., 2010), as the latent variables (unobservable variables). While as variable manifest (observable variable) developed as many as 32 indicators to observe/measure latent variables. Operationalization of these variables is listed in Table 1.

#### 3.4. Data Analysis Method

This research uses Confirmation Factor Analysis method, which is a factor analysis technique where a priori based on known theory and concept, understood or determined previously developed a

**Table 1: Variable operationalization**

Variable	Conceptual description	Indicator	Symbol
X1 green product/service	Green products are products made by companies with environmental responsibility (Johri and Sahasakmontri, 1998). This product is designed and processed in a manner to reduce the effects that can pollute the environment in the production, distribution and consumption. This can be attributed to recyclable feedstocks. The characteristics of green products are certified (Herbig, 2002)	Comfortable	X1.1
		Recycled water	X1.2
		Recycled paper	X1.3
		Organic and non-organic trash	X1.4
		Award	X1.5
X2 green price	Pricing on green products should emphasize the application of prices that take into account the economic costs and environmental costs of production and marketing processes, while providing value to customers and a reasonable profit for businesses (Martin and Schouten, 2012)	Competitive rates	X2.1
		The towel storage instructions in the hotel room	X2.2
		The cost of the 3R program	X2.3
		CSR budget	X2.4
X3 green place	The layout of places or facilities of the hotel is easy to reach, clean and comfortable and equipped with a green theme so as to provide maximum satisfaction for hotel guests (Godfrey, 1998; Martin et al., 2012).	Reachable	X3.1
		Cleanliness	X3.2
		Comfort	X3.3
		Live plant ornaments	X3.4
		Beautiful	X3.5
X4 green promotion	Communications program that can provide information about the company's efforts, commitment and achievements towards environmental conservation (Belz et al., 2009; Dahlstrom, 2011). E.g. advertising environmental attractiveness, publication of environmental impact reduction efforts, and merging environmental claims on product packaging (Banerjee, 1999; Menon and Menon, 1997).	Environmental-themed advertising	X4.1
		Environmental programs involving the community	X4.2
		Sponsorship at environmental seminars	X4.3
		Green Community	X4.4
X5 green physical Evidence	Matters relating to appearance and style that can be observed by naked eye, so as to convey the value expected for consumers, in the form of cleanliness, speed, physical design, use of technology or other benefits that all contribute to environmental conservation (Prakash, 2002)	Green building design	X5.1
		Magnetic card key	X5.2
		Water fixtures (hemat air)	X5.3
		IPAL	X5.4
		Automation hand-dryer (hemat listrik)	X5.5
		Green garden	X5.6
X6 green process	The organizational system, in the form of actual procedures, mechanisms, and activity flows used to deliver services (Zeithaml et al., 2010) with the efficient utilization of energy or other natural resources and the least polluted impacts of pollution on air, water, soil and humans (Polonsky, 1995; Prakash, 2002)	Energy-saving policies	X6.1
		Centralized electricity system	X6.2
		There is waste treatment	X6.3
		Paperless office	X6.4
		3R commitment (reduce, reuse, recycle)	X6.5
X7 green people	All actors who play a role and are directly involved in the presentation of services (Zeithaml et al., 2010), the service officers themselves and consumers and the general public within the service environment are delivered, where their behavior in the service delivery interaction is professional, ethical and has no impact for environmental sustainability (Prakash, 2002)	Guest participation on green behavior (not smoking in any place, electricity/water-saving behavior)	X7.1
		Hospitality of hotel employees Training	X7.2
			X7.3

Source: The result of conceptual development

number of factors and variables with the aim to get new variable or factor representing some item or sub- variable, which is an observable variable (Thurstone, 1931). So in the process of factor analysis try to find the relationship between a number of variables that are mutually independent with one another, so that later can be made one or more set of variables less than the number of initial variables (Santoso, 2010).

The stages in the factor analysis are as follows:

1. Data feasibility test by looking at Kaiser Meyer-Olkin index value (KMO), in order to see the feasibility of the data for research.

2. Looking at the number of factors formed in the total variance explained table.
3. Test what factors go into a factor in the rotated component matrix table based on the largest loading factor.

## 4. RESULTS AND DISCUSSION

### 4.1. Overview of Research Objects

#### 4.1.1. Hyatt Regency Hotel Yogyakarta

Hyatt regency Yogyakarta is the largest hotel in Yogyakarta even in Indonesia. The hotel has an area of 24 ha surrounded by forests,

has a beautiful golf course (nine-hole) and also a spa facility that provides great relaxation and dining facilities. Hyatt Regency Yogyakarta is an ideal place to hold meetings, conferences, or holidays.

Vision Hyatt regency Yogyakarta “recognized as the most successful management services provider for luxury hotels, resort hotels and developers of multi-purpose, fully-equipped international real estate facilities.” Hyatt regency Yogyakarta is the most preferred resort hotel in Yogyakarta that provides comfortable accommodation and is operated by a dynamic and professional team and incorporated in the spirit and behavior in delivering contemporary services and products as expected by discerning visitors in business or leisure.

Hyatt regency Yogyakarta has 269 rooms spread over four sides of the hotel: 209 Rooms with Garden View, 51 Regency Club rooms, 6 Junior Suites, 2 Executive Suite and 1 Presidential Suite. There are also 3 special rooms for disabled people. This starter box hotel is located on bogeys terrace adjacent to health club. Reservations for playing golf can be done directly at bogeys terrace. While the hotel also has a driving arena which is facilitated with spotlights located to the north of the hotel area, 500 m from the hotel building. Other Hyatt regency Yogyakarta facilities are: 24-h assistant manager; Safety deposit boxes; Laundry and dry cleaning; Medical clinic; Baby services; Children’s playground; Communication center; Tourist office and travel agent; Limousine service; Airport representative; Hair and beauty salon; Boutiques and pharmacies; Bus to malioboro; Room service for 24 h; Restaurants and bars: Kemangi bistro, paseban lobby lounge, paseban lobby court, bogeys terrace, pine terrace and terrace panorama.

With a team of well trained, highly motivated, passionate and personable people, confidence, discipline, perfect personal displays and multi skilled, Hyatt regency Yogyakarta’s management team is very flexible, full of initiative, solid teamwork and our sincere appreciation of the guests and co-workers. Together embodies a commitment to local culture, goals and values in an ever-changing business situation.

#### *4.1.2. Discovery Kartika Plaza Hotel and Resort*

Discovery Kartika Plaza hotel and resort Located on a private beachfront location in Kuta, to the north of Ngurah Rai International Airport. It is a five-star seaside resort, next to discovery shopping mall and a 10-min walk to Kuta Center. The hotel caters to both tourists and business travelers with its 7 restaurants and bars, 9 function rooms, a spa, a fitness center, a swimming pool with extensive carved ornaments, and a helipad.

The resort has 318 rooms, suites and villas. These rooms are comprised of 274 rooms with 1 King-size bed or 2 Twin beds, and 6 Family rooms equipped with 1 King-size bed and 1 Twin bed. With so many choices, whether travelers traveling alone, travelers traveling with friends, spouses or families will find suitable rooms for their holiday needs.

The whole room is dressed with warm earth colors to reflect the Balinese unpretentious atmosphere. Elements of Balinese art

presented through the decoration of his room, among others, with paintings and carvings on the door. The 32 suites at this hotel have larger rooms compared to rooms. Suite consists of 6 junior suites, 16 family suite, 8 discovery suite, and 2 presidential suite. All of these suites, except family suite, come with a sitting room. Presidential suite is suitable for couples or families who need more privacy in a luxurious environment.

The suite resembles a home furnished with beautiful furniture, with additional privileges such as an indoor pool and 24-h butler service. The hotel features 6 beachfront villas located on the left corner of the property. The luxurious villas feature 2 bedrooms with an en suite bathroom and bathtub, sitting and pantry room, private garden with outdoor bale and private plunge pool. All villas have direct access to Kuta Beach as well as personal butler service. These villas must be favored by families who want privacy and tranquility, away from all the activities that take place in the main building. The villas also have an event location with an intimate atmosphere for parties and private events of up to 20 people.

Hotel discovery Kartika plaza has complete facilities for a range of activities with 9 multi-purpose rooms of various sizes and also available pre-function areas, in areas used for canapé and cocktails before the event begins. All event locations are equipped with modern amenities including audio-visual equipment, wireless Internet and elegant furniture. Food and drinks can also be arranged for all types of events.

Discovery hotels and resorts management is an organization consisting of experienced and competent hoteliers and tourism experts. Discovery hotels and resorts management provides management and consulting services for prestigious hotels and remote resorts. Discovery hotels and resorts has been certified green globe certified, which is a structured assessment of the sustainability performance of travel and tourism businesses and their supply chain partners. Businesses can monitor the improvement and achievement of documents leading to their company’s ongoing certification of operations and management.

The green globe standard includes 44 core criteria supported by over 380 compliance indicators. Applicable indicators vary by type of certification, geographical area as well as local factors. The entire Green globe standard is reviewed and updated twice per calendar year.

Some awards that have been achieved are Indonesia travel and tourism award (ITTA) several prestigious awards; Holiday check quality selection 2013 HolidayCheck.com; Zoover award 2013 No. 4 Hotel in Indonesia (9.2 points out of 10); (Tri Hita Karana) awarded emerald medal; Certified of excellence; Trip advisor; ITS red star award 2011/2012 one of the 100 best and most popular hotels worldwide; Indonesia leading beach resort 2012/2013 ITTA; Certified of excellence trip advisor; ASEAN green hotel of Asean tourism forum.

#### *4.1.3. Sintesa Peninsula Hotel Manado*

Sintesa Peninsula Hotel is located at Jalan Jendral Sudirman, Wenang, Manado. This 5-star hotel was built in 2008. It has 11

floors and 150 rooms with various options. Prices charged for each room start from 727,000 Ruphias to 994,000 Ruphias per night. Hotel Sintesa Peninsula uses both Indonesian and English. To reach Sam Ratulangi Airport, it is a 30-min drive away. In addition to the entertainment and tourist sites that can be visited include Malalayang Beach, Ban Hing Kiong Temple, Bunaken National Park, Lembah Strait and Manado Town Square.

With 150 spacious rooms and decorated with modern touches are divided into several categories: Superior 3<sup>rd</sup> - 11<sup>th</sup> floor 106 rooms; Studio 3<sup>rd</sup> - 11<sup>th</sup> floor 8 rooms; Corner Suite 3<sup>rd</sup> - 11<sup>th</sup> floor 26 rooms; Deluxe Suite 3<sup>rd</sup> - 10<sup>th</sup> floor 7 rooms; Sintesa Suite 9<sup>th</sup> - 10<sup>th</sup> floor 2 rooms; President suite 8<sup>th</sup> floor 1 room. All rooms are equipped with standard five-star hotel facilities, such as air-conditioning, 24-h room service, IDD phone, sofa, work desk, mini bar, satellite television, private bathroom, shower, hot and cold shower facilities, free mineral water, storage box, Wi-Fi network access in every room, coffee and tea making facilities, slippers, wardrobe. Spacious bathroom features two washbasins with separate shower area minimum 45 square meters of room and floor-to-ceiling glass windows.

From the room you can enjoy views of the nearby mountains and islands. Other services and facilities in the form of taxi and limousine rental are the star facilities offered at hotel Sintesa Manado. Food and drink facilities: Gardenia coffee shop; Panoramic lounge; Orchid lounge and cocktail bar; Club deluxe with views over the city consist of executive dining and executive lobby lounge. Executive dining is an indoor restaurant while executive lobby lounge is a place where you can enjoy delicious food in the open space. Close to the lobby there is the orchid lounge which is a perfect place for a coffee with colleagues. With a buffet and a la carte menu, gardenia coffee shop overlooking the park is a convenient place for formal and informal meetings. Facilities meeting room: Lotus grand ballroom; Tulip; Frangipani; Heliconia; *Allamanda* and jasmine. Other facilities: Fuji spa; Swimming pool and fitness (Sintesa Peninsula Hotel Manado, 2015).

#### 4.1.4. Gran Melia Hotel Jakarta

Gran Melia Jakarta is a five star hotel under the auspices of Melia Hotels international. Gran Melia Jakarta was built in 1995, designed with the concept and architecture full of luxury and splendor of the 21<sup>st</sup> century hotel. Moreover after being renovated in 2012, the hotel is increasingly showing its class as a premium hotel in Indonesia. Located in Jakarta's golden triangle, Jalan H.R. Rasuna Said Kav X-0, Kuningan, Jakarta Capital Special Region 12950, Indonesia, with travel time to Soekarno Hatta International Airport no more than 45 min through highway with traffic condition smoothly.

Gran Melia Jakarta has 16 storey building and provides 407 luxurious rooms and equipped with the best facilities. Also included are: Spacious bathroom with separate IDD shower and bath-tub with voice messages and lights alerts when there is a message Network facsimile and high speed internet access using Wi-Fi channels, extra laptop connection Wireless network for free, Personalized Central AC Adjustable Storage Box 42inch LCD TV with 62 Satellite TV channels setting panel beside bed with alarm clock mini bar/Fridge full tea/Coffee making facility

writing station hair dryer stop contact for Tool shaver with adapter 115-230 V/50 cycle magnetic card lock, weighing facility located in bathroom. Check-in time: 2.00 pm, Check-out time: 12.00 (noon), Electricity: 220 V/110 V. Child policy: Free for children up to 12 years old sharing room with parents. Cots are available upon request. Gran Melia also offers free facilities for children under 12 who spend the night with their parents.

There are several room options to suit your needs, such as deluxe room, premium room, red level Room, grand premium room, junior suite, deluxe suite, grand suite and presidential suite. The red level executive club is the most impressive and contemporary lounge to relax in the hotel. Check-in and check-out services are available exclusively on the 14<sup>th</sup> floor. The red level rooms are located on the 14<sup>th</sup>-16<sup>th</sup> floors residents of this room can enjoy a more private space located on the 14<sup>th</sup> floor with beautiful views of tall buildings at Jakarta. Red Level-Gran Melia Jakarta, just like a luxury residence within the hotel, is the most exclusive service provided by Melia Hotel International. Gran Melia hotel offering the most superior level of service with the privileges and luxury of 5 star Hotels in Jakarta.

The red level is a luxury residence within the hotel with outstanding service in accordance with standards and commitment to become the best executive club in Jakarta. The Gran Melia hotel also offers a variety of meeting and banquet rooms to meet the needs of the guests for various events. You can choose Legian room, Legian I, Legian II, Columbus room, Kuta room, Benoa, Ubud, Boardroom 1, Boardroom 2, Lotus Bungur, or Cempaka Kenanga for every most valuable event.

Gran Melia Jakarta received a silver certificate in earth check July 2012; ASEAN green hotel 2012-2014; green hotel standard national awards December 2011 Staff who master more than one language Limousine service and direct service to doctor's rooms, flower arrangement, massage service, business facilities, security and personal services red level.

#### 4.2. Respondent's Overview (Hotel Guest)

In order to obtain the general description (description) of the respondents, the general data of the respondents obtained through the answers of the questionnaire entered and not damaged. Then made a list of recapitulation by Age group of respondents, Job type, amount of income, destination of stay, Frequency of stay and Reason of stay. Completely presented in Table 2.

Guests staying at the hotel have different destinations. Analysis of the purpose of stay is intended to know the purpose of each guest stay and what activities are done during the stay. The characteristic of guest stay is distinguished based on the purpose of traveling, business activities, attending meetings/events and more. Therefore, the hotel management provides different policies to each segment by offering products, services, facilities and special prices for some of these segments. Kotler and Keller (2008. p. 139) states "a company can specialize in making products and services needed for a particular group of people."

The four hotels that serve as a research place is a city resort hotel, a hotel that combines the characteristics of hotel city and resort

hotels. Hotel city resort is a natural hotel such as close to the mountains, the beach, the edge of the lake or the riverbank with a different atmosphere and comfortable, but the location is strategic and not far from the city center other than that the facilities it provides even like urban dwelling. Therefore the hotels are highly prioritizing the purpose of the guests who stay. Therefore, the purpose of the guest stay was made one of the questions in this study, due to the different services and interactions in serving the guests based on the purpose of stay.

Based on Table 2 above, we can know the description of respondents based on the purpose of stay. The majority of Gran Melia Hotel's guests are guests with 50.75% business stay and MICE attendance of 32.84%. The majority of guests of hotel discovery Kartika plaza bali are guests whose purpose is to stay as much as 73.13%. and for MICE purposes as much as 25.37%. This is because Bali is still a favorite tourist destination so the occupancy rate of hotels in Bali is still higher (for tourist destinations) compared to other hotels, including Discovery Kartika Plaza Kuta Bali Hotel which was once awarded as Beach hotel best. In contrast, to travel business purpose is still in the business center, namely Jakarta, so the Grand Melia hotel Jakarta which is already equipped with supporting facilities for MICE and business and the location is close to downtown or

business Jakarta has occupancy rate (for business purposes and MICE) higher than others. This is confirmed from the survey results (Table 3) Seen that the majority of guests staying at Gran Melia Hotel Jakarta work as entrepreneurs/entrepreneurs by 55.22%. While the majority of guests with income levels above 90 million rupiah also stay at Gran Melia Hotel Jakarta as much as 46.27%, which can also indicate that most guests who stay at Hotel Gran Melia Jakarta is aimed at doing business or attending MICE. While choosing the green factor of the hotel as the reason for the guests to stay/stay at the selected hotel, the biggest only 21.31%, i.e., at Hyatt Regency Hotel Yogyakarta. This means that environmentally friendly factors or attributes of "green" behavior in hotels are not strong enough to be the reason guests choose to stay at the hotels where this research is conducted.

### 4.3. Factors of Green Marketing Mix Hospitality

Green marketing is an activity designed to generally facilitate change to satisfy human needs or wants, by minimizing impact on the natural environment (Grundey et al., 2008). Green marketing as a holistic management process responsible for identifying, anticipating and satisfying the desires of consumers and society in a profitable and sustainable way (Karna et al., 2001). So, green marketing can be interpreted as a corporate activity that

**Table 2: Respondent's overview**

Respondent's overview	Kartika	Hyatt	Melia	Peninsula
	F (%)	F (%)	F (%)	F (%)
Age group (Year)				
<25	9 (13.43)	14 (22.95)	11 (16.42)	11 (22.92)
26 s/d 55	43 (64.18)	26 (42.62)	37 (55.22)	30 (62.50)
>55	15 (22.39)	21 (34.43)	19 (28.36)	7 (14.58)
Total	67 (100)	61 (100)	67 (100)	48 (100)
Type of work				
Entrepreneur	18 (26.87)	23 (37.70)	37 (55.22)	19 (39.58)
Civil servant, soldier, police	28 (41.79)	17 (27.87)	25 (37.31)	10 (20.83)
Pension	9 (13.43)	14 (22.95)	4 (5.97)	2 (4.17)
Students, family	12 (17.91)	7 (11.48)	1 (1.49)	17 (35.42)
Total	67 (100)	61 (100)	67 (100)	48 (100)
Earning per month (Rp/month)				
<Rp. 30.000.000	0 (0.00)	5 (8.20)	0 (0.00)	8 (16.67)
30.000.001 s/d 60.000.000	9 (13.43)	15 (24.59)	15 (22.39)	9 (18.75)
60.000.001 s/d 90.000.000	17 (25.37)	16 (26.23)	21 (31.34)	15 (31.25)
>90.000.000	41 (61.19)	25 (40.98)	31 (46.27)	16 (33.33)
Total	67 (100)	61 (100)	67 (100)	48 (100)
Destination stay				
Business	6 (8.96)	18 (29.51)	34 (50.75)	13 (27.08)
Travel	49 (73.13)	32 (52.46)	9 (13.43)	17 (35.42)
MICE	9 (13.43)	8 (13.11)	22 (32.84)	12 (25.00)
Etc.	3 (4.48)	3 (4.92)	2 (2.99)	6 (12.50)
Total	67 (100)	61 (100)	67 (100)	48 (100)
How many times stay at the this hotel				
Once	33 (49.25)	23 (37.70)	29 (43.28)	27 (56.25)
Twice	21 (31.34)	8 (13.11)	23 (34.33)	12 (25.00)
Three times	9 (13.43)	19 (31.15)	11 (16.42)	8 (16.67)
More than three times	4 (5.97)	11 (18.03)	4 (5.97)	1 (2.08)
Jumlah	67 (100)	61 (100)	67 (100)	48 (100)
The reason for staying at the hotel				
Premium and complete facilities	31 (46.27)	29 (47.54)	29 (43.28)	19 (39.58)
Excellent service quality	21 (31.34)	18 (29.51)	18 (26.87)	17 (35.42)
Prestige	2 (2.99)	1 (1.64)	12 (17.91)	9 (18.75)
Green hotel	13 (19.40)	13 (21.31)	8 (11.94)	3 (6.25)
Total	67 (100)	61 (100)	67 (100)	48 (100)

Source: Result of data processing research (2017)

incorporates aspects of the environment in its marketing activities. Green marketing manipulates the four elements of the marketing mix (product, price, promotion, and distribution) to sell the product and seven elements for the services offered from the advantages of environmental conservation advantages formed from waste reduction, increased energy efficiency, and reduction of toxic gas emissions from the production process.

The integration of green marketing mix elements in the business strategy planning process often creates problems within the company, as environmental policies are treated only in addition to not being fully integrated into a strategic plan (Abror, 2011).

To determine the factors of green marketing mix in hotel industry, this research used confirmation factor analysis method,

that is a technique of factor analysis where a priori based on known theory and concept, understood or determined previously developed a number of factors and variables with the purpose to get a new variable or factor representing some item or sub-variable, which is an observable variable (Thurstone, 1931). So in the process of factor analysis try to find the relationship between a number of variables that are independent of each other, so that later can be made one or more collection of variables less than the number of initial variables (Santoso, 2010). The stages in the factor analysis are as follows: (1) Data feasibility test by looking at KMO, in order to see the feasibility of the data for research. (2) Looking at the number of factors formed in the total variance explained table. (3) Looking at what factors go into a factor in the rotated component matrix table based on the largest loading factor.

**Table 3: Identification of green marketing mix factor**

Actor	Indicator	Name	Element test analysis					Conclusion
			KMO and Bartlett's test	Anti-image correlation	Eigen value	Compo-nent Matrix	Compo-nent score coefient matrix	
X1	X1.1	Comfortable	K: 0.733 B: 83.394 Sig: 0.000	0.427	–	–	–	Not eligible
	X1.2	Water recycling		0.719	1.771	0.626	0.754	Eligible
	X1.3	Recycled paper		0.695		0.613	0.624	Eligible
	X1.4	Organic and non-organic trash containers		0.682		0.633	0.658	Eligible
	X1.5	Award		0.614		0.686	0.676	Eligible
X1=Z (0.754 X1.2+0.624X1.3+0.658 X1.4+0.676 X1.5)								
X2	X2.1	Competitive rate	K: 0.689 B: 47.149 Sig: 0.001	0.462	1.410	0.675	0.679	Eligible
	X2.2	Ticket storage instruction in the hotel room		0.576	–	–	–	Not eligible
	X2.3	The cost of the 3M program		0.594	–	–	–	Not eligible
	X2.4	CSR budget		0.579	–	–	–	Not eligible
X3	X3.1	Reachable	K: 0.699 B: 43.697 Sig: 0.003	0.613	1.478	0.686	0.724	Eligible
	X3.2	Cleanliness		0.622		0.649	0.626	Eligible
	X3.3	Confort		0.618		0.681	0.514	Eligible
	X3.4	Lifeplants ornament		0.628	–	–	–	Not eligible
	X3.5	Beutifull		0.677	–	–	–	Not eligible
X3=Z (0.724 X3.1+0.626 X3.2+0.514 X3.3)								
X4	X4.1	Environmental themed ads	K: 0.701 B: 37.224 Sig: 0.000	0.633	1.603	0.709	0.586	Eligible
	X4.2	Environmental-program involving the community		0.671		0.652	0.619	Eligible
	X4.3	Sponsorship at environmental seminars		0.589	–	–	–	Not eligible
	X4.4	Green community		0.565	–	–	–	Not eligible
X4=Z (0.586 X4.1+0.619 X4.2)								
X5	X5.1	Green building design	K: 0.619 B: 26.137 Sig: 0.000	0.712	2.481	0.703	0.573	Eligible
	X5.2	Magnetic card key		0.629		0.674	0.554	Eligible
	X5.3	Water fixtures		0.635		0.653	0.568	Eligible
	X5.4	IPAL		0.648		0.751	0.648	Eligible
	X5.5	Automation hand-dryer		0.683		0.721	0.683	Eligible
	X5.6	Green park		0.619		0.746	0.619	Eligible
X5=Z (0.573 X5.1+0.554 X5.2+0.568 X5.3+0.648 X5.4+0.683 X5.5+0.619 X5.6)								
X6	X6.1	Energy saving policy	K: 0.703 B: 34.268 Sig: 0.000	0.693	1.936	0.772	0.538	eligible
	X6.2	Centralized electricity system		0.739		0.741	0.617	eligible
	X6.3	There is waste treatment		0.684	–	0.694	0.623	eligible
	X6.4	Paperless office		0.751	1.936	0.752	0.619	Eligible
	X6.5	3R policy (reduce, reuse, recycle)		0.695		0.729	0.786	Eligible
X6=Z (0.538 X6.1+0.617 X6.2+0.623 X6.3+0.619 X6.4+0.786 X6.5)								
X7	X7.1	Guest participation on green behavior (not smoking in any place, electricity, water saving behavior)	K: 0.711 B: 54.661 Sig: 0.002	0.731	2.148	0.627	0.577	Eligible
	X7.2	Hospitality of hotel employees		0.727		0.715	0.624	Eligible
	X7.3	Training		0.687		0.731	0.511	eligible
X7=Z (0,577 X7.1+0,624 X7.2+0,511 X7.3)								

Source: Result of data processing research (2017)

#### 4.3.1. Results of data analysis research factor analysis results

After the research data processed using SPSS software help then obtained the results as presented in Table 3.

## 5. DISCUSSION

1. Discussion of X1 factor test results:

- a. KMO (Keizer-Meyer-Olkin)-Bartlett's Test. From Table 3 above, the lane "KMO and Bartlett's Test" looks the value of K, B and Sig.

K value is KMO with test parameter if  $KMO > 0.5$  sample data used in this research "Eligible" or sufficient. Because the KMO value of 0.733 data used in this factor analysis can be used and further processed.

Bartlett's and Sig's test results. Is the test result of the hypothesis:

$H_0$  = Correlation matrix = identity matrix.

$H_1$  = correlation matrix  $\neq$  identity matrix.

Rejection  $H_0$  is done in 2 ways: (1) Bartlett's test of sphericity > Chi-square table (0.05; 100), (2) Significance value < 0.0

Bartlett's test of sphericity score is 53.394 which is larger than Chi-square table for  $df = 6$ ; 0.05 is 18.548 with a significance level of 0.000 which means < 0.05. So it can be concluded that  $H_0$  is rejected or the correlation matrix is not the same as the identity matrix. This gives information that sub-variables are correlated, since the correlation matrix diverges from the orthogonal (identity matrix) which has a determinant 1 (validity test). Besides these results have a high accuracy (significance) of 0.000 which implies that the correlation matrix is suitable for factor analysis (reliability test). Conclusion: Factor X1 (Green Product) is good and the sample is sufficient (enough) to be analyzed further.

- b. Anti-image correlation test. In the "anti image correlation" line, all values for each sub variable > 0.5, except for the sub-variable "Comfort" have a value of 0.427. Conclusions: Sub variable "Recycled water," "Recycled paper," "Organic and non-organic trash" and "award (award)" are eligible to be a factor component together as a determinant of green product. While the sub variable "comfort" can not be used because the value of anti image correlation < 0.5.

- c. Total variance explained test. In the "eigen value" column the sub-variables "recycled water," "recycled paper," "organic and non-organic trash" and "award (award)" have an initial total eigen value of 1.771, meaning only there is a factor with green product formed from its sub-variable. Conclusion: The sub-variables "recycled water," "recycled paper," "organic and non-organic trash" and "award (award)" are eligible to represent the green factor-forming variable.

Component matrix. Test parameters: If the factor value of the factor  $\geq 0.5$  means that the dimension or sub-variable of factor measurement is a member of the factor formed, Conversely, if the factor value of < 0.5 means the dimension of the sub-variable measurement is not a member of that factor. In the Component Matrix lane the values for the sub-variables of "recycled water," "recycled paper," "Organic and non-organic trash" and "award (") are > 0.5./sub variable "recycled water," "recycled paper," "organic and non-organic trash" and "award (award)" are the Green Factor-forming variables.

Component coefficient score matrix. Coefficient Score is a constant or coefficient similar to the regression coefficient ( $\beta_i$ ) in multiple regression equations. It emphasizes on the form of relationship or model or equation between factor and its constituent variables. In addition, on factor analysis all the dimensions or sub-variables of the factor or item have been transformed into standard data or Z data (data Z has averages = 0, variance = 1, and data without units or relative). The factor value for each sample is called the factor score (SF) and each factor score value is a new data composing a new variable from the sub-variable of the constituent or its dimension or item. The general equation of factor scores.

$$F_j = a_1 Z_{X1} + a_2 Z_{X2} + \dots + a_p Z_{Xp} + e_j$$

Where:

$F_j$  = is a factor score or a j-shared component; (j = 1, 2, .., k)

$Z_{xi}$  = a sub-variable or a standardized dimension or item

$a_i$  = parameters that reflect the importance of the j-component factor.  $a_i$  in the factor analysis is called the load or the component score coefficient matrix of the i-th response on the j joint factor; (i = 1, 2, .., p; and j = 1, 2, .., k)

$e_j$  = error of j-th response, in the analysis referred to as a randomly specified factor/component; (i = 1, 2, .., k).

Thus the values contained in the Component coefficient score matrix are the coefficients of the sub variable "recycled water," "recycled paper," "organic and non-organic trash" and "award (award)" used to form equation factor (X1), that is:

$$X_1 = Z (0.754 X_{1.2} + 0.624 X_{1.3} + 0.658 X_{1.4} + 0.676 X_{1.5})$$

2. Furthermore, for the factors X2, X3, X4, X5, X6 and X7 using the same method as in point 1) above will be obtained the interpretation which can be seen in Table 2 above in the "conclusion" lane. For the "eligible" category it means that of the 32 measurable manifest variables (24 variables) that can be used to observe and measure green marketing mix (green 7P) factors in the hospitality industry, as shown in Table 4.

## 6. CONCLUSION AND SUGESTION

From 32 variable manifest (sub variable) measured has resulted 24 new indicators that can be used to observe and measure green marketing mix (green 7P) factors in hotel industry: Green Product: (1) Recycled water; (2) Recycled paper; (3) Organic and non-organic waste bins; (4) Award (award) green price: Competitive rates. Green place: (1) Easy to reach; (2) Cleanliness; (3) Convenience green promotion: (1) Environmental-themed ads; (2) Environmental programs involving the community.

Green physical evidence: (1) Green building design; (2) Magnetic card key; (3) Water fixtures (water saving); (4) WWTP; (5) Automatic hand-dryer (electricity saving); (6) Green park

Green process: (1) Energy-saving policy; (2) Centralized electricity system; (3) There is Waste Treatment; (4) Paperless office; (5) 3R policy (Reduce, Reuse, Recycle)

**Table 4: Marketing mix factors of hotel**

No	Variable	Faktor green marketing hotel
1	Green product	(1) Water recycling, (2) Recycled paper, (3) Organic and non-organic waste bins (4) Award
2	Green price	Competitive tariff
3	Green Place	(1) Easy to reach (2) Cleanliness (3) Comfort
4	Green promotion	(1) Environmental-themed ads (2) Environmental programs involving the community
5	Green physical evidence	(1) Green building design (2) Magnetic card key (3) Water fixtures (4) IPAL (5) Automatic hand-dryer (6) Green park
6	Green Process	(1) Electricity saving policy (2) Centralized electricity system (3) There is waste system (4) Paperless office (5) 3R policy (Reduce, Reuse, Recycle)
7	Green People	(1) Guest participation on green behavior (not smoking in any place, electricity, water saving behavior) (2) Hospitality of hotel employees (3) Training

Source: Result of data processing research, 2017

Green people: (1) Guest participation on green behavior (not smoking in any place, saving electricity/water); (2) Hospitality of hotel employees; (3) Training.

Research still needs to be continued again to find or prove the relationship of factors or variables of green marketing mix to other variables.

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