



## GENERATION Z AND GREEN HOTEL PRACTICES

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### Abstract

The increase of environmental awareness is believed to have a significant impact on hotel selection. As the future stakeholders of the hotel industry, generation Z was born in a world where they faced challenge in tourism and environmental problems. This research presents a study on the perception of the generation Z in Jakarta - Indonesia, towards the green hotel practices as something that affects the service quality and customer loyalty to a hotel. The green hotel practices being investigated are limited to the water saving practices, energy saving practices and waste management practices. From the result of this research, it is shown that green hotel practices have positive influence towards the generation Z's view in regards to service quality and customer loyalty. This affects further to the hotel customer's satisfaction of service quality and the customer's intention on going back to the same hotel. As all of these variables have positive relations towards each other, it can be concluded that they are aligned to the purpose of this research, which states that generation Z customers would most likely be satisfied and devoted with hotel brands that apply green hotel practices which includes water saving, energy saving, and waste management.

Keywords: Green hotel practice; Service Quality; Customer Loyalty; Generation Z.

### Introduction

Travel and tourism industry generates billions of dollars in economics activity each year and it's expectedly to grow substantially. Direct contribution to the GDP has grown by 3.1% in the year 2016. The employment rate grown by 1.8% in 2016 that means almost 2 million net additional jobs were generated by the travel and tourism industry and total around 6 million new jobs were created for new recruits (TWTC, 2017). The potential impacts of such growth to the environments, along with other factors such as the climate change have become particularly hot topics within the travel and tourism industry nowadays. Hotels in particular have received much attention in the world economy right now. The concerns of the negative impact that they make to the environment has become popular initiative including environmental considerations which have to be considered by elite hotels in implementing green hotel practices (Barber, 2014). According to Chan (2011) the negative impacts include the extensive amount of chemicals for the swimming pool that the hotels use on daily basis. In responding that matters, hotels around the world have put that concerns into account and begun to change their practices that is beneficial to the environment and also to the hotels. By promoting environmental practices to their system, hotels will receive greatly positive publicity and they will be able to save more money and resources.

The increase of environmental awareness is believed to have a significant impact on hotel selection. Travelers are now paying attentions to hotels that have the environmental policies in place. The environmentally conscious customers rapidly begin to grow in numbers in hospitality industry. They also begin to consider themselves as environment friendly minded and inclined toward "green" offerings. The hotel and tourism industry have to generate adoptions of environmental technologies to generate more environment-friendly hotel technologies (Chan, Okumus, & Chan, 2018). The types of environmental hotels have to reduce the negative impacts to the environment in such a way it becomes one of the factors that the travelers choose when selecting their hotel to stay in. Hotel that voluntarily provides environmentally friendly attributes are



often referred to as either green hotels or environmentally friendly hotels. Some hotels may have many environmental attributes in place, while others may have just a few. Thus, some travelers might have questioned whether a hotel truly applies green or environmentally friendly practices?

Generation Z is a demographic group of people following Millennial of evolution. They are also known as the post-Millennial. According to Singh (2014), generation Z era began with a birth year group from 1990s to 2000s and the ending birth from late 2010s. This birth group extensively uses the modern era technology which is the internet from the very young age. In his research, Singh also stated that living in this era has given this group a feeling of unsettlement and insecurity to the generation. Furthermore, Generation Z era was born in a world where they faced challenge in tourism and environmental problems. In the modern era, Generation Z are extremely aware of the climate changes, and global warming to be great threats to their destinations. The generation Z was chosen as the respondents because they are the future stakeholders of the hotel industry and a future employee because they were born in an era where the issue regarding environmental degradation has become the concern. Therefore, their perception on this matter is important.

Jakarta is the capital city and one of Indonesia's main destination together with Bali and Batam. The number of tourists visiting Jakarta keeps on increasing by 18.8% from 2.13 million tourists in 2012 until 2.51 million tourists in 2016. The growth in the number of tourists has affected the growth in the hospitality industry. The data from the Statistics of Indonesia shows that the number of star hotels in Jakarta in the year of 2012 was 178, and in 2016, there had already become 232 star hotels, where 29 of them are five-star hotels. This significant growth has become something potential to the environmental issues because every five-star hotel has an obligation to provide a high standard of facilities to their guests that may involve a large amount of water, energy and waste.

Referring to the illustration above, this work presents the perception of the generation Z in Jakarta, Indonesia towards the green hotel practices as something that affects the service quality and customer loyalty to a hotel. In summary, the contributions of this work are described as follow:

- a. We investigate the green hotel practices related to the water saving practices, energy saving practices and waste management practices.
- b. We explore the perception of the generation Z as hotel guest towards those aspects.

The rest of this paper is organized as follow. Section 2 presents green hotel rudimentary, materials used in this research and the proposed method. Section 3 presents obtained results and followed with discussion in section 4. Finally, the conclusion of this work is described in Section 5.

## Literature Review

### *Green Hotel*

According to Kasim (2017) Green hotels, also called ecologically friendly hotels, eco-friendly hotels, or environmentally friendly hotels, are described in many different ways. According to the Green Hotel Association, green hotels are “environmentally-friendly properties whose managers are eager to institute programs that save water, save energy and reduce solid waste while saving money, aimed to help protect our one and only earth”. This definition shows general ways of how hotels reduce the impact toward the environment. A study combines the definition with socio-economic factors: “the hotel operates in a responsible manner towards its employees, the local community, the local culture, and the surrounding ecology”.

There are numerous motivations for hotels to apply green practices including: a feeling of social responsibility, governmental regulations, and economic benefits (Bohdanowicz, 2006). The current environmental crisis that is occurring worldwide are making green hotels increasingly popular. Other than that, going green makes each property unique, and furthermore creates a



competitive advantage (Mohanty & Deshmukh, 2002). Graci & Dodds (2008) stated, by participating in green practices, hotels can create a positive company image that can also result in a competitive advantage amongst other properties in the hospitality industry. Another benefit of green hotel practices is minimizing the use of energy, which means reducing the hotel cost. “It has been well documented in several studies that economic benefits can be gained through implementing environmental initiatives”.

Several studies were conducted during the late 1990's and early 2000's to identify which demographic profiles were mostly affected by green products. However, the results of the studies show contradiction with each other (Haanpää, 2007; Roberts & Straughan, 1999). As an example, result of one study stated that the younger generations were more environmentally concerned. However, a study found the opposite answer, concluding that younger age groups have decreased commitment to green initiatives (Haanpää, 2007). The impact of income level upon environmental concern have also been found to vary across studies. Some studies found that people who are more environmentally concerned are the ones with the higher income or social class (Arbuthnot & Lingg, 1975; Lyons & Breakwell, 1993; Roberts & Straughan, 1999). However, a study found that there were no difference statistically between various income levels and environmental concern (Haanpää, 2007).

Ever since the start of the 2000s, research on green consumers' perceptions and attitudes within the lodging industry has been lacking. The most recent studies within the hospitality industry published in 2009, which surveyed the perceptions of green restaurant customers on green restaurants (Ogbeide et al., 2009). There have only been a few recent studies focusing on consumer's perceptions of green hotels that have been published (Han, Hsu, Lee, & Sheu, 2011; Lee, Hsu, Han, & Kim, 2010).

#### ***Green Hotel Attributes***

It is important for hotel managers to understand the needs and wants of their guests and what specific factors they look for when selecting a hotel. This is especially important for hoteliers that wish to attract new travelers or reach into a niche market (example: the environmentally friendly traveler). The results will provide hoteliers with useful information about which attributes should be promoted in order to attract travelers that are concerned about the environment (Millar & Baloglu, 2011). The American Hotel & Lodging Educational Institute reported that the three “green” attributes (energy-saving, water-saving and recycling), were identified as the most commonly applied practices in the industry (Slevitch, Mathe, Karpova, & Scott-Halsell, 2013). According to Watkins (1994) some environmentally friendly hotel attributes that travelers may consider when selecting a green hotel that the study reported were:

- a. Recycling bins
- b. Energy-efficient lighting
- c. Using recycled paper for promotional materials
- d. Changing sheets only when requested
- e. Turning off lights in unoccupied guest room

According to Kasim, (2017), Tourists were willing to accept rooms with green attributes such as:

- a. Water saving features
- b. Recycling bins
- c. Fire-safety features
- d. Energy saving features
- e. Information on local ecotourism attractions
- f. Recycling features

According to Sanbe, (2013) The other green hotel attributes are:

- a. Having Energy efficient bulbs in sleeping area
- b. Energy efficient light bulbs in guest bathroom



- c. Low flow toilets
- d. Low flow sinks
- e. Low flow showerheads
- f. Refillable soap dispensers
- g. Refillable shampoo dispensers
- h. Using eco-friendly products
- i. Towel reuse programs
- j. Sheets changed upon request only
- k. Having Recycling bins
- l. Occupancy sensors
- m. Key card to turn power to the room on and off.

Although there is plenty of research related to hotel selection, there is very little attention on how environmentally friendly hotel attributes would affect the travelers' hotel choice. A study done by Virginia Polytechnic Institute and State University (Virginia Tech) and Lodging Hospitality. Watkins (1994) suggested that frequent travelers would stay in hotels with environmental practices, but they would not be willing to pay a premium for those rooms. Another study found that tourists care about the environment and are knowledgeable, but their hotel choice consideration is not based on the hotel's environmental strategy (Kasim, 2017). Although that does not mean that they would not approve room attributes that were environmentally friendly. Despite the fact that travelers said they were likely to stay in hotels that provided such attributes, and despite the fact that a large portion of the travelers considered themselves environmentally conscious customers, they did not necessarily consider themselves environmentally conscious travelers. In other words, their environmentally conscious beliefs were not necessarily followed up by their actions when traveling (Millar & Baloglu, 2011).

#### ***Service Quality***

According to Sanbe, (2013) and Wirtz, (2019) Service quality is a measurement on how much the service delivered by provider meets the customers' expectations. Measurement of service quality can be more complicated due to the intangibility of services. Researchers generally use the term perceived service quality in order to measure the quality of intangible services. Perceived service quality is a result of the comparison of perceptions about service delivery process and actual outcome of service. Thus, SERVQUAL was developed as an advanced model for measuring service quality (Parasuraman, A., Zeithaml, V. A. and Berry, 1988). The SERVQUAL dimensions are Tangibles: physical facilities, appearance of physical elements; Reliability: dependable and accurate performance; Responsiveness: promptness and helpfulness; Assurance: credibility, security, competence and courtesy; and Empathy: easy access, good communications and customer understanding.

Environmentally conscious customers are rapidly growing in numbers and 73% of hospitality consumers consider themselves environmentally minded and inclined toward "green" offerings (Sen, S., & Bhattacharya, 2001). Very few recent studies and research focusing on consumer's perceptions of green hotels have been published (Han et al., 2011; Lee et al., 2010). Current consumer attitudes and perceptions are important to study as demand for green hotel attributes are increasing (Bohdanowicz, 2006). Therefore, it is of great importance for hoteliers to study the impact of green practices to hotel service quality which leads to customer satisfaction.

Most researchers and practitioners agree that customer satisfaction depends on a few determinants at a product or service attribute level, and customer satisfaction formation is significantly affected by the overall attribute performance (Oliver, 1997). To achieve a strong customer satisfaction profit connection, hoteliers should design products and services with attributes that maximize customer satisfaction (Knutson, B. J., Singh, A. J., Yen, H-H., and Bryant, 2003). Green practices may have influence on how performance of core and facilitating attributes impact customer satisfaction. Knowledge about this topic is crucial in order to achieve customer satisfaction



maximization (Chen, 2012; Michael K. Hui, Xiande Zhao, Xiucheng Fan, & Kevin Au, 2004; Mittal, Ross, & Baldasare, 1998; Tontini & Silveira, 2007). Another key point to highlight is to keep green attribute performance in a range above acceptable level for the hotel consumers (Yoo & Bai, 2013). Referring to the description above, the hypothesis 1 is proposed as follows:

H1: Green Hotel Practices have a positive impact towards Service Quality.

#### ***Customer Loyalty***

Customer loyalty has knowingly become a strategic objective for companies in the service sector. It is acknowledged that the visit frequency of loyal customers is higher, and that they buy or consume more than non-loyal consumers. Moreover, loyal customers are less likely to consider competitor hotel brands in their accommodation decisions only due to an economic reason (Yoo & Bai, 2013).

According to Carev, (2008) there are three separate dimensions of customer loyalty: behavioral, attitudinal, and composite. Behavioral loyalty considers measurements of consistent, repetitious purchase behavior as an indicator of loyalty. The problem with this type of measurement is that, repeat purchase does not always mean commitment (Bowen & Shiang-lih, 2013). For example, a traveler may stay at a hotel because it is the most convenient location. When a new hotel opens across the street, they switch because the new hotel offers better value. The second dimension of loyalty, attitudinal measurements of loyalty, use attitudinal data to reflect the emotional and psychological attachment inherent in loyalty. In this measurement, a guest could hold a hotel in high regard, recommend the hotel to others, but feel the hotel was too expensive for him/her to use on regular basis. Composite measurements, as the third dimension of customer loyalty, is a combination of behavioral and attitudinal measurements (Cheng, 2011).

The measurement of customer loyalty is a way to investigate factors that might increase it (Hunter, V., & Michl, 2000). With the measurement of customer loyalty, factors which promotes it were established. There are three highlighted indicators of loyalty: (1) satisfaction with organization/ its products and/or services; (2) the customer's intention for repeated purchase; and (3) the customer's intention to recommend a trademark (product/service/shop).

Consumers continue to visit a hotel if they had a positive experience, thereby becoming increasingly loyal to the hotel and the environmental practices they have in place (Roberts & Straughan, 1999). What drives consumers to frequently visit the same hotel is the positive feeling they experience, and the instant gratification for doing something good for the environment while they are traveling (Manaktola & Jauhari, 2007). It is important to understand what guests are looking for in a hotel in order to attract and retain their business. Hotels offering green practices may experience higher customer retention rates as consumers become devoted to a particular hotel and the environmental practices in place (Roberts & Straughan, 1999). However, as the number of green hotels continues to increase, current research about consumers' behavior and perception of them is lacking (Lee et al., 2010). Referring to the description, the second hypothesis is proposed as follows:

H2: Green Hotel Practices have a positive impact towards Customer Loyalty.

#### ***Generation Z***

Generation Z is the demographic group following the Millennials. They are also known as the Post-Millennials. Generation Z era began with a birth year group from 1990s to 2000s and the ending birth from late 2010s (Singh, 2014). A significant aspect of this generation is its extensive usage of the Internet from a very young age. Some researchers have suggested that growing up through this era has given the group a feeling of unsettlement and insecurity (Grail Research, 2011).

Geck, (2006) notes that Generation Z students are the first to be born into a totally digital world and they are the most electronically connected generation. The internet has enabled them to always be connected, to communicate and collaborate immediately if desired, and to access large amounts of information. They have the skills needed to take the advantage of advanced



technologies, therefore they will be more helpful in today's high tech world. Although they possess a highly technological literacy, members of Generation Z prefer have to face contact in person compared to online interaction. Another important note to point out is that Generation Z seeks more than just a normal job. They want a feeling of fulfillment and excitement in their job, also aiming to develop the world into a better place.

The Generation Z were born into a world facing challenges such as terrorism and environmental problems (Singh, 2014). The Generation Z are extremely aware of modern day challenges due to the access of wide online information. 74% of teenagers globally, consider climate change and global warming to be a greater threat than drugs, violence or war. Many companies have seen this as an opportunity. For example, McDonald's headquarters encourages all their franchises to improve energy efficiency and reduce their carbon footprint. It has also launched environmental education programs for kids to spread the message of environmental responsibility. Globally, teens along with their families are changing their purchasing behavior towards choosing environmentally responsible products and companies. A marketing implication for companies to consider is offering green products or taking a proactive attitude toward the environment as they market to this generation (Grail Research, 2011).

Generation z customers or consumers have a buying power of 43 million in dollar per year. The most sought products are video games (31%), followed by clothing (20%) and as the result of an impulse purchases, products such as candy and others. This generation Z consumer put into the basket most on electronics with the amount of total 10% in the world, while music, books, and games are the same in 9% of the bestselling products. Based on the Gen Z behavior study, it was revealed that customers or consumers in generation Z makes promotion and uses their gadgets rather than uses traditional social media campaign. They feel better by themselves in a customer situation where it is possible to taste and experience the product and can take part in promotional sporting events, participate in sweepstakes in stores, and etc. According to the study, these are the characteristics defined by the marketers that is aimed for generation Z:

- a. Struggle to obtain the attention
- b. Design
- c. Social responsibilities
- d. Continuous net connection

According to researches a successful brand that successfully gets the attention from the generation Z is as follows:

- a. Digitalized
- b. Mobile
- c. Interactivity
- d. The instant
- e. Community
- f. Complexity

Researchers conclude that the boundaries of each generation is believed to be found in the children that are born between 2010 and 2020 that is called alpha generation. It is assumed that the youngest generation, will be much better educated than those preceded them, and be more materialistic. Many people label the members of the generation as the "Great Generation", and they consider the age group as they can make the world better.

## **Methodology**

### ***Data***

The research were conducted from July – December 2017 and the data collection period was between September – October 2017. In this research, the data is collected from the questionnaires that were distributed to the Generation Z respondents. The variables included in the questionnaires are; green hotel attributes, service quality, and customer loyalty. The relationships





between the three variables are analyzed through ordinal data that is measured with 5-point Likert scale. It ranges from 1: Strongly Disagree, 2: Disagree, 3: Neutral, 4: Agree, 5: Strongly Agree. The chosen location for the research is DKI Jakarta area. As the capital city of Indonesia, DKI Jakarta is a leading city in the country. The city is the country's economic, cultural, and political center. The hospitality industry in the city has been growing rapidly where many hotels have been adopting green practices to encourage green area growth. For this study, there are three five-star hotel that were chosen as the object of research. These hotels are:

- a. The Park Lane Jakarta
- b. Pullman Jakarta Central Park
- c. JW Marriot Jakarta

These hotels were chosen because they have won the Green Hotel Award in 2015 from the Ministry of Tourism in Indonesia. The study is based on the sample of Generation Z that have experienced staying in either one or more of the hotels above in the last 2 years. Only the data that came from the qualified sample will be further processed with the SPSS software and AMOS software. The Generation Z that have stayed in those hotels must have experienced and knowledge regarding the hotels and therefore making their judgement eligible for this research.

Sampling is the process of selecting the right individuals, objects, or event as representatives for the entire population. There are four steps in sampling process of this research i.e.:

- a. Define the population

Singh, (2014) stated the population of this research is Generation Z in Jakarta area, those who were born between 1990 - 2005 (this range is in line with Singh's definition who stated that Generation Z era began with a birth year group from 1990s to 2000s and the ending birth from late 2010s who have stayed in either one or more of the hotels which won the Green Hotel Award 2015 (The Park Lane Jakarta, Pullman Central Park Jakarta, and JW Marriott Jakarta) in the past two years. However, the cut-off year of birth is 2005 where they are already at the age of 13 (the age of junior high school student in Indonesia). According to Jakarta Open Data, in 2016 the number of Jakarta's residences who belongs to the age group approximately is 1.5 million people (about 14.28% of Jakarta's residences).

- b. Determine the sampling design

This research is using non probability sampling design because there was a difficulty to get a definite sampling frame. The type of non-probability sampling design used is purposive judgement sampling since it involves the choice of subjects who are most advantageously placed on the best position to provide the information required (Sekaran&Bougie, 2016). Thus, the respondents are those who are at the age between 13 – 28 years old who had stayed in either one or more of the hotels which won the Green Hotel Award 2015 (The Park Lane Jakarta, Pullman Central Park Jakarta, and JW Marriott Jakarta) in the past two years.

- c. Determine the appropriate sample size

The research spreads questionnaires through the Google Forms online platform. From 175 distributed questionnaires, only 150 questionnaires were valid and eligible to be used for further analysis. The reason for distributing that number of questionnaire was based on the recommendation from Hairet al (1996) regarding the sample size; the number of respondents is adjusted with the parameters of the study and to anticipate the lack of responses from the hotel guests towards the questionnaires. The model consists of 30 observable variables (indicators). Therefore, the minimum samples required are  $5 \times 30 = 150$  respondents.

- d. Execute the sampling process

The questionnaires were spread through Google Forms online platform to the filtered respondents.



### ***Method***

In responding to the relational questions of variables within the research, then quantitative research is used. “Quantitative researchers seek explanations and predictions that will be generated to other persons and places. The purpose is to establish, confirm, or validate relationships and to develop generalizations that contribute to the theory” [43].

#### ***Questionnaire Development***

Questions in the research were designed to solicit respondents' views of green hotel practices. The questionnaire is divided into 4 sections, which consist of: the correspondent's profile, green hotel attributes indicators, service quality indicators, and customer loyalty indicators. The green hotel practice indicators (water, energy, and waste management) are based on the study done by Kasim, (2017); Watkins, (1994); Sanbe, (2013). The service quality indicators are built upon the SERVQUAL model developed by Parasuraman et al, (1988) . Finally the customer loyalty indicators are formed from the study of loyalty measurement by Hunter and Michl, (2000) and dimensions of customer loyalty developed by Carev, (2008) and Cheng, (2011)

#### ***Data Analysis***

Data analysis is a step wherein researcher gathered their data and analyzed it statistically in order to see whether it supports the generated hypotheses or not. In this research, researcher applied and used a quantitative analysis to analyze the data that are already gathered using an electronic questionnaire and prove it whether it really supports the hypothesis or not (Sekaran&Bougie, 2016).

#### ***Quantitative Analysis***

Quantitative data analysis is used for hypothesis testing. The analysis would include the relation between variables: customer loyalty, service quality, water saving, energy saving and waste management. The data that is going to be analyzed is ordinal data with 5-points scale. It ranges from (1: Strongly Disagree, 2: Disagree, 3: Neutral, 4: Agree, 5: Strongly Agree). The analysis process will be done with the help of SPSS software.

- **Reliability Tests**  
The reliability of a measure indicates the extent to which it is without bias (error free) and hence ensures consistent measurement across time and across the various items in the instrument. To test the reliability, Cronbach's alpha is used. If the result is less than 0.60, the reliability is considered poor. If it is in the 0.70 range, then it is considered acceptable while over 0.80, then it is considered good (Sekaran&Bougie, 2016).
- **Validity Test**  
Validity is a test that is run to know to what extent a measuring instrument could do its function in measuring a particular concept which is intended to measure consistently (Sekaran&Bougie, 2016).
- **Structural Equation Modeling (SEM) using AMOS software**  
The SEM analysis is done to see the impact of the variables of the research. The steps of the analysis includes:
  - 1) **Goodness of Fit Test**  
The variables are tested using the AMOS software according to the goodness of fit index criteria. According to Hooper, Coughlan, & Mullen, (2008) with regards to which indices should be reported, it is not necessary or realistic to include every index included in the program's output as it will burden both a reader and a reviewer. However, reporting only those fit indices that indicate the best fit should be avoided at all costs since it is essentially hiding important information from the reader and reviewer. McDonald & Ho, (2002) found that the most commonly reported fit indices are the CFI, GFI, NFI and the NNFI. While Hu and Bentler suggested a two-index presentation format. This always includes the SRMR with the NNFI (TLI), RMSEA or the CFI. Although the Model Chi-Square has many problems associated with it, it is still essential that this statistic, along with its degrees of freedom and





associated p value, should at all times reported (Kline, 2011; Hayduk, 2007). Referring to these, in this paper we combine some index that describe fitness of the model which are: Chi-Square, NFI, NNFI (TLI), CFI, and RMSEA.

2) Hypothesis Theory Test

Hypothesis 1:

Green Hotel Practices has a positive impact towards Service Quality.

Hypothesis 2:

Green Hotel Practices has a positive impact towards Customer Loyalty.

The hypothesis theory test is used using the SEM analysis. The statistic result test indicates whether the hypothesis has impact from one variable to another. If the result shows in minus figure, it is concluded that the impact is negative. On the other hand, if the result shows in positive figure, it is concluded that the impact is positive towards the variables.

## Results and Discussion

### Respondent Profile

The research spreads questionnaires through Google Forms online platform aiming 150 valid respondents. Therefore, every questionnaire that enters is directly checked for the validity and reliability. The following Table 1 is the result regarding Respondent's profile:

Table 1. Respondents' Profile

Source: SPSS Data Analysis Result (2017)

ITEMS	Frequency	Percentage	Valid Percentage	Cumulative Percentage
<b>1. GENDER</b>				
Male	73	48.7	48.7	48.7
Female	77	51.3	51.3	100.0
Total	150	100.0	100.0	
<b>2. AGE</b>				
< 15 years old	2	1.3	1.3	1.3
15 - 20 years old	52	34.7	34.7	36.0
> 20 years old	96	64.0	64.0	100.0
Total	150	100.0	100.0	
<b>3. INCOME LEVEL (IDR)</b>				
< 3.000.000	11	7.3	7.3	7.3
3.000.000 - 6.000.000	56	37.3	37.3	44.7
6.000.000 - 9.000.000	38	25.3	25.3	70.0
> 9.000.000	45	30.0	30.0	100.0
Total	150	100.0	100.0	
<b>4. EXPENSE LEVEL</b>				
< 3.000.000	35	23.3	23.3	23.3
3.000.000 - 6.000.000	60	40.0	40.0	63.3
6.000.000 - 9.000.000	24	16.0	16.0	79.3
> R 9.000.000	31	20.7	20.7	100.0
Total	150	100.0	100.0	



From Table 1, the respondents consist of female (51.3%) and male (48.7%). In terms of age, there were three different Generation Z age categories, which are: < 15 years old, 15 – 20 years old, and > 20 years old. From the data about the respondents above, it is discovered that the questionnaires are responded more by people that are 20 years old and above, the data showed that < 15 years old is 1.3%, 15-20 years old is 34.5% and > 20 years old is 64%. There were also four categories in knowing the level of income of the people who filled in the questionnaire. The ranges of income are < 3.000.000, 3.000.000 – 6.000.000, 6.000.000 – 9.000.000 and > 9.000.000. From the data gathered above, it can be seen that the questionnaire that has been filled in comes more from people that have 3.000.000 – 6.000.000 income monthly. The last item regarding respondents' profile is the level of expenses. The researcher tends to pick the range of expense level monthly as the same categories as the level of income monthly categories.

#### *Reliability and Validity Test*

The reliability of a measure indicates the extent to which it is without bias (error free) and hence ensures consistent measurement across time and across the various items in the instrument (Ellan, 2009). Reliability test is used to ensure that the instruments in the analysis is consistent and accurate. The reliability test of each construct could be seen from the value of cronbach's coefficient alpha. Cronbach coefficient alpha could be defined as the positive relation between one item/question to another. A questionnaire is considered weak when the Cronbach Alpha indicates that it is < 0.60, acceptable in the 0.70 range and good when the Cronbach Alpha is > 0.80 (see Table 2).

Table 2. Reliability Test Result

Variable	Items	N	Cronbach Alpha	Result
Water Saving	5	150	0.815	Reliable
Energy Saving	5	150	0.792	Reliable
Waste Management	5	150	0.812	Reliable
Service Quality	10	150	0.913	Reliable
Customer Loyalty	5	150	0.757	Reliable

Source: SPSS Data Analysis Result (2017)

According to the reliability test result table, the five variables of Water Saving, Energy Saving, Waste Management, Service Quality, and Customer Loyalty are reliable based on the result of Cronbach's Alpha that is  $\geq 0.60$ . In other words, there is an internal consistency in the statements above, therefore it is able to build a construct of each variable.

The validity determined how well something measures the object or concept which is intended to measure. According to the validity test result table, all instruments from the five variables of Water Saving, Energy Saving, Waste Management, Service Quality, and Customer Loyalty are valid because all the loading factor  $> 0.45$ . In other words, there is an internal consistency in the statements above, therefore it is able to build a construct of each variable (see Table 3).

Table 3. Validity Test Result

Item	Loading Factor	Result
Water Saving		
WS1	0.844	Valid
WS2	0.841	Valid
WS3	0.808	Valid



Item	Loading Factor	Result
WS4	0.590	Valid
WS5	0.703	Valid
Energy Saving		
ES1	0.722	Valid
ES2	0.749	Valid
ES3	0.813	Valid
ES4	0.780	Valid
ES5	0.682	Valid
Waste Management		
WM1	0.828	Valid
WM2	0.807	Valid
WM3	0.566	Valid
WM4	0.827	Valid
WM5	0.858	Valid
Service Quality		
SQ1	0.698	Valid
SQ2	0.736	Valid
SQ3	0.765	Valid
SQ4	0.760	Valid
SQ5	0.816	Valid
SQ6	0.761	Valid
SQ7	0.756	Valid
SQ8	0.776	Valid
SQ9	0.731	Valid
SQ10	0.703	Valid
Customer Loyalty		
CL1	0.782	Valid
CL2	0.761	Valid
CL3	0.625	Valid
CL4	0.701	Valid
CL5	0.713	Valid

Source: SPSS Data Analysis Result (2017)

According to the validity test result table, all instruments from the five variables of Water Saving, Energy Saving, Waste Management, Service Quality, and Customer Loyalty are valid because all of the loading factors are  $> 0.45$ . In other words, there is an internal consistency in the statements above, therefore being able to build a construct of each variable.

#### *Goodness of Fit Test*

The goodness of fit models criteria table above concluded that the RMR and RMSEA approach has resulted in fit model, therefore the hypothesis theory can be continued.

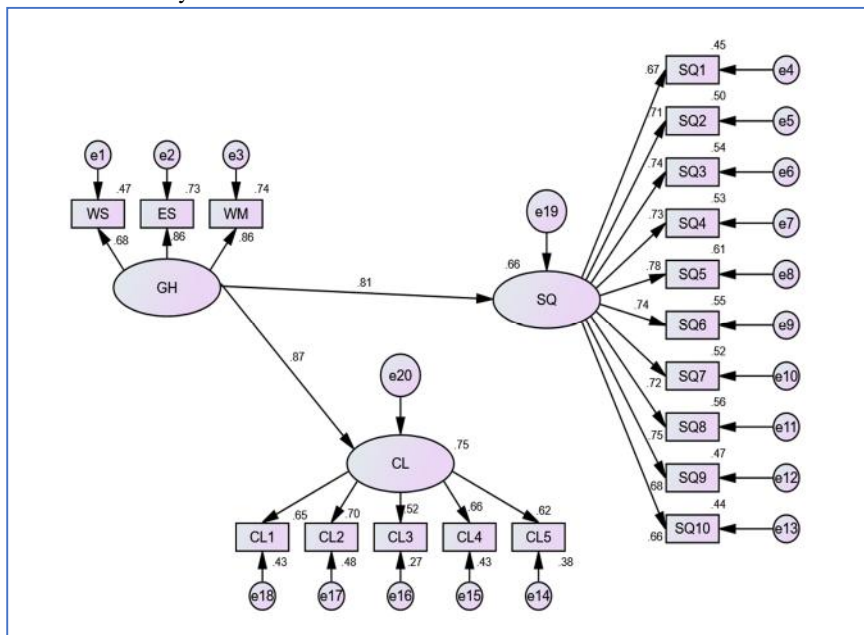
Table 4. Goodness of Fit Models Criteria

Goodness of Fit Index	Criteria (Cut-Off Value)	Indicator Value	Conclusion
Chi-Square (X <sup>2</sup> )	Close to 0	278.472	Poor Fit
NFI	$\geq 0.90$	0.823	Marginal Fit
TLI	$\geq 0.90$	0.882	Marginal Fit
CFI	$\geq 0.90$	0.897	Marginal Fit
RMSEA	$\leq 0.10$	0.086	Goodness of Fit

Source: SPSS Data Analysis Result (2017)

Figure 1. Variable Analysis Scheme

Source: AMOS Data Analysis Result



#### Hypothesis Result

The result of data processing are as described in Table 5 as follows:

Table 5. Hypothesis Theory Test Result

			Estimate	P
GH	→	SQ	0.811	0.000
GH	→	CL	0.869	0.000

Source: AMOS Data Analysis Result (2017)

Hypothesis 1: Green Hotel Practices has a positive impact towards ServiceQuality

From Table 5 above, according to the statistic test result, it is shown that the GH (Green Hotel Practices) coefficient value is 0.811. This means that the higher perception of GH (Green Hotel Practices), will also produce higher perception of SQ (Service Quality). The test result shows the p-value amount of  $0.000 < 0.05$  (alpha 5%), thus it is concluded statistically that on the 95% level of trust, positive impact can be found from GH (Green Hotel Practices) towards SQ (Service Quality).

Hypothesis 2: Green Hotel Practices has a positive impact towards Customer Loyalty

From Table 5 above, according to the statistic test result, it is shown that the GH (Green Hotel Practices) coefficient value is 0.869. This means that the higher perception of GH (Green Hotel Practices) will also produce higher perception of CL (Customer Loyalty). The test result shows the p-value amount of  $0.000 < 0.05$  (alpha 5%), thus it is concluded statistically that at the 95% level of trust, positive impact can be found from GH (Green Hotel Practices) towards CL (Customer Loyalty).



Table 6.Green Hotel Practices Variables Contribution

Variable		Variable	Contribution
GH	→	WS	.683
GH	→	ES	.856
GH	→	WM	.859

Source: AMOS Data Analysis Result (2017)

According to the green hotel practices variables contribution Table 6 above, it is shown that the biggest contributions towards forming latent variables for GH (Green Hotel Practices) are:

- WM (Waste Management) indicator with coefficient value of 0.859
- ES (Energy Saving) indicator with coefficient value of 0.856
- WS (Water Saving) indicator with coefficient value of 0.683

The result of the questionnaires were as follows:

Table 7. Water Saving

No	Questions	Respondent		
		Scale	Frequency	Percentage
1	Housekeeping Department changes bed linen only when requested	Strongly Disagree	3	2%
		Disagree	5	3.3%
		Neutral	10	6.7%
		Agree	79	52.7%
		Strongly Agree	53	35.3%
2	Housekeeping Department changes towels only when requested	Strongly Disagree	3	2%
		Disagree	5	3.3%
		Neutral	14	9.3%
		Agree	90	60%
		Strongly Agree	38	25.3%
3	Low flow water in the toilet, sink, and shower	Strongly Disagree	6	4%
		Disagree	19	12.7%
		Neutral	40	26.7%
		Agree	54	36%
		Strongly Agree	31	20.7%
4	Installment of water saving signage (in the form of stickers, boards, etc) around the hotel area	Strongly Disagree	1	0.7%
		Disagree	0	0%
		Neutral	17	11.3%
		Agree	60	40%
		Strongly Agree	72	48%



No	Questions	Respondent		
		Scale	Frequency	Percentage
5	Hotel recycles water (from rain and waste) and uses it for other activities such as: watering plants, toilet flush water, etc	Strongly Disagree	2	1.3%
		Disagree	7	4.7%
		Neutral	19	12.7%
		Agree	72	48%
		Strongly Agree	50	33.3%

Source: SPSS Data Analysis Result (2017)

According to the results that are collected from the questionnaire, the results shown a positive respond from the respondents toward green hotel practices in the water saving features. Majority of the respondents (52.7%) agree that the housekeeping should change the bed linen only when requested. Majority of the respondents (52.7%) also agree that the housekeeping should change the bed linen only when requested. Related to the housekeeping changing the towels only when requested, 60% respondents agree and 25.3% strongly agree. The respondents also shown positive attitude towards every acts to save water such as low flow water in the toilet, sink, and shower. Moreover, the respondents strongly agree with the installation of water saving signage (in the form of stickers, boards, and etc.) around the hotel area. These respondents believe that hotel should recycle water (from rain and waste) and use it for activities such as: watering plants, toilet flush water, and etc.

Table 8. Energy Saving

No	Questions	Respondent		
		Scale	Frequency	Percentage
1	Hotel uses solar panel (converts sun's rays to electrical energy) in attempt to save energy	Strongly Disagree	0	0%
		Disagree	2	1.3%
		Neutral	7	4.7%
		Agree	63	42%
		Strongly Agree	78	52%
2	Hotel turns off electricity in unoccupied guest rooms	Strongly Disagree	0	0%
		Disagree	0	0%
		Neutral	9	6%
		Agree	57	38%
		Strongly Agree	84	56%
3	Hotel uses energy efficient lighting in the guest room and guest bathroom	Strongly Disagree	0	0%
		Disagree	1	0.7%
		Neutral	5	3.3%
		Agree	71	47.3%





No	Questions	Respondent		
		Scale	Frequency	Percentage
		Strongly Agree	73	48.7%
4	Guestroom uses key card power switch thereby automatically turning off electricity when guests are not present in the room	Strongly Disagree	0	0%
		Disagree	0	0%
		Neutral	10	6.7%
		Agree	72	48%
		Strongly Agree	68	45.3%
5	Hotel installs Smart TV which automatically turns off when the sensor does not detect any guest watching	Strongly Disagree	1	0.7%
		Disagree	6	4%
		Neutral	21	14%
		Agree	64	42.7%
		Strongly Agree	58	38.7%

Source: SPSS Data Analysis Result (2017)

Related to energy saving features the respond were also positive. More than 50% of the respondents strongly agree toward hotel using solar panel which converts sun's rays to electrical energy in attempt to save energy. Moreover, the statement of 'hotel turns off electricity in unoccupied guest gets very positive responds. The claim that hotel uses energy efficient lighting in the guest room and guest bathroom is mostly seen with the respondents as something positive (48.7% strongly agree and 47.3% agree.) Furthermore, many respondents agree with the idea of guestroom using key card power switch thereby automatically turning off electricity when guests are not present in the room. Then, the majority of respondents 42.7% agree with the hotel installing Smart TV which automatically turns off when the sensor does not detect any guest watching. The result tells us that the Generation Z as the customers do have attention on how the energy can be saved. It is very possible that the hotel guests these days highly valued hotel with green practice is especially when the hotel offer up-to-date technology.

Table 9. Waste Management

No	Questions	Respondent		
		Scale	Frequency	Percentage
1	Recycling bins placed around the hotel area, separating organic and non-organic waste	Strongly Disagree	0	0%
		Disagree	1	0.7%
		Neutral	5	3.3%
		Agree	64	42.7%
		Strongly Agree	80	53.3%
2	Using recycled paper for hotel administration activities	Strongly Disagree	1	0.7%
		Disagree	1	0.7%
		Neutral	10	6.7%



No	Questions	Respondent		
		Scale	Frequency	Percentage
3	Using refillable soap and shampoo dispensers in the guest bathroom	Strongly Disagree	2	1.3%
		Disagree	10	6.7%
		Neutral	28	18.7%
		Agree	55	36.7%
		Strongly Agree	55	36.7%
4	Using eco-friendly products (such as: detergent, toilet paper, etc)	Strongly Disagree	0	0%
		Disagree	0	0%
		Neutral	10	6.7%
		Agree	55	36.7%
		Strongly Agree	85	56.7%
5	Conducting waste recycling program in the hotel	Strongly Disagree	0	0%
		Disagree	2	1.3%
		Neutral	10	6.7%
		Agree	60	40%
		Strongly Agree	78	52%

Source: SPSS Data Analysis Result (2017)

Waste management is another attribute in green hotel practice. The majority of the respondents strongly agree with recycling bins placed around the hotel area, separating organic and non-organic waste. Moreover, the result of using recycled paper for hotel administration activities indicates a very positive responds. These result shows that the guest doesn't mind if their bill is printed in a recycled paper. The other thing to be noticed is the result regarding the use of refillable soap and shampoo dispensers in the guest bathroom. Regarding this, the majority of the respondents agree with the practice even though the rate of agreement is not as high as the approval in other aspects (only 36.7% strongly agree and 36.7% agree). It also appears that majority of the respondents supports the green practice of using eco-friendly products (such as eco-friendly detergent toilet paper). They also show strong supports on if the hotel conducting waste recycling program. This result gives an insight that the generation Z as a guest have a concern and support the green hotel practice program in the hotel.

Table 10. Service Quality

No	Questions	Respondent		
		Scale	Frequency	Percentage
1	Green hotels maintain clean facilities and	Strongly Disagree	0	0%
		Disagree	0	0%



No	Questions	Respondent		
		Scale	Frequency	Percentage
	equipment	Neutral	3	2%
		Agree	67	44.7%
		Strongly Agree	80	53.3%
2	Green hotel employees appear neat and well dressed	Strongly Disagree	0	0%
		Disagree	0	0%
		Neutral	4	2.7%
		Agree	70	46.7%
		Strongly Agree	76	50.7%
3	Green hotel employees perform the promised service accurately and dependably	Strongly Disagree	0	0%
		Disagree	0	0%
		Neutral	9	6%
		Agree	63	42%
		Strongly Agree	78	52%
4	Green hotel employees show sympathy and reassurance when guests have problems	Strongly Disagree	0	0%
		Disagree	0	0%
		Neutral	6	4%
		Agree	69	46%
		Strongly Agree	75	50%
5	Green hotel employees are willing to help customers and provide prompt service	Strongly Disagree	0	0%
		Disagree	0	0%
		Neutral	6	4%
		Agree	67	44.7%
		Strongly Agree	77	51.3%
6	Green hotel employees are able to recognize and respond to changing customer needs	Strongly Disagree	0	0%
		Disagree	0	0%
		Neutral	9	6%
		Agree	62	41.3%
		Strongly Agree	79	52.7%
7	Customers of green	Strongly Disagree	0	0%



No	Questions	Respondent		
		Scale	Frequency	Percentage
	hotels feel trustful towards the hotel company	Disagree	0	0%
		Neutral	5	3.3%
		Agree	70	46.7%
		Strongly Agree	75	50%
8	Customers of green hotels feel safe in their transactions with hotel employees	Strongly Disagree	0	0%
		Disagree	0	0%
		Neutral	5	3.3%
		Agree	66	44%
		Strongly Agree	79	52.7%
9	Green hotel employees show empathy toward customers	Strongly Disagree	0	0%
		Disagree	0	0%
		Neutral	4	2.7%
		Agree	59	39.3%
		Strongly Agree	87	58%
10	Green hotel employees provide individualized attention to customers	Strongly Disagree	0	0%
		Disagree	1	0.7%
		Neutral	12	8%
		Agree	53	35.3%
		Strongly Agree	84	56%

Source: SPSS Data Analysis Result (2017)

The respondents also show positive respond to Service Quality Indicators. Most of the respondents were strongly agree that green hotels should maintain clean facilities and equipment as part of their service quality. Regarding the appearance of the green hotels employee, the result shows that the respondents agree if the green hotel employees appear neat and well dressed. In relation to reliability, 'green hotel employees should perform the promised service accurately and dependably'. Finally, most of the respondents strongly agree to green hotel employees showing sympathy and reassurance when guests have problems.

Furthermore, the respondents also shows their approval regarding whether green hotel employees should help customers and provide prompt service, being able to recognize and respond to changing customer needs, the respondents of green hotels feel trustful towards the hotel company'. Meanwhile, the majority of respondents that green hotels guests should feel safe in their transactions with hotel employees. Then, 58% of the respondents strongly agree and 39.3% agree, towards green hotel employees showing empathy toward customers. Finally, the respondents also agree if 'Green hotel employees provide individualized attention to customers'.



Table 11. Customer Loyalty

No	Questions	Respondent		
		Scale	Frequency	Percentage
1	Customers of green hotels feel satisfied with the overall experience during their stay	Strongly Disagree	0	0%
		Disagree	0	0%
		Neutral	3	2%
		Agree	69	46%
		Strongly Agree	78	52%
2	Customers of green hotels have the intention of going back to the same hotel after their stay	Strongly Disagree	0	0%
		Disagree	0	0%
		Neutral	9	6%
		Agree	72	48%
		Strongly Agree	69	46%
3	Customers of green hotels do not feel regretful toward their stay at the hotel brand	Strongly Disagree	0	0%
		Disagree	0	0%
		Neutral	5	3.3%
		Agree	53	35.3%
		Strongly Agree	92	61.3%
4	Customers of green hotels stays repeatedly in the same hotel brand	Strongly Disagree	0	0%
		Disagree	3	2%
		Neutral	19	12.7%
		Agree	69	46%
		Strongly Agree	59	39.3%
5	Customers of green hotels recommends the brand to others, but may not stay in the hotel on a regular basis	Strongly Disagree	0	0%
		Disagree	0	0%
		Neutral	11	7.3%
		Agree	59	39.3%
		Strongly Agree	80	53.3%

Source: SPSS Data Analysis Result (2017)

Finally, most of the respondents strongly agree that guests of green hotels feel satisfied with the overall experience during their stay in the hotel with green practice. This result affecting their intention of going back to the same hotel after their stay and do not feel regretful toward their stay at the hotel brand. In fact, most of the respondents agree that guests of green hotels stays repeatedly in the same hotel brand. Lastly the result shows that 56% of the respondents strongly agree that



green hotels guests will recommend the brand to others but may not stay in the hotel on a regular basis. These result supports several previous studies that found the positive impact of green hotel practice on customer loyalty.

#### **4. Discussion**

There are not much research that focused on the impact of Green Hotel Practices on Service Quality and Customer Loyalty from the Generation Z perception. The current study sought to explore how the implementation of Green Hotel Practice may impacting Generation Z's perception on the hotel's Service Quality and their Customer Loyalty towards the hotel. There were three types of Green Hotel Practice that were being investigated: Water Saving, Energy Saving and Waste Management. Study findings hold both theoretical and practical implications. First, the prediction of green hotel practice has a positive impact on service quality was well supported. The majority of the respondents showed positive support on questionnaire items regarding water saving practice. The results send a clear message that the generation Z sees green hotel practices in a hotel is enhancing the service quality given to the guests. This result is in line with previous study by (Ham & Han, 2013). that customers relate a hotel's core business and green practice positively, which affects purchase intentions. The practical implication of this findings are: hotel may convey the message about their green hotel practice to the Generation Z and make a green practice program in their hotel which allows guests participation. When strategy of a firm is applied to a societal issue, such as green practices, it will result in customers' loyalty, employees' morale, retention rates, and satisfaction, and relationships with governments, all of which result in enhanced performance. The enhanced in performance may be in the form of the increasing Service Quality. In relation to the Generation Z as the generation who were born into a world facing challenges such as terrorism and environmental problems (Singh, 2014), this fact may drive them to prefer hotels with Green Hotel Practice if the hotels communicate their work well to the generation. The hotels may use various social media that popular among the Generation Z to communicate their Green Hotel Practice programs.

Second, the data also support the second hypothesis that Green Hotel Practice has a positive impact towards Customer Loyalty. This result can be added to other researches that also showed the positive impact of Green Hotel Practice to Customer Loyalty such as Kassins&Soteriou, (2003) and Molina-Azorin et al., (2009). which support the customers' perceptions of green practices are positive influences on a hospitality firm's performance and its customers' loyalty. The practical implication of this result is that the marketing department of the hotel should explore the Green Hotel Practice factors which can be emphasized in their communication strategy especially to the Generation Z. The other thing that can be done is developing Green Hotel Practice programs where the guests can be involved, for example: the program provided for the guests in Generation Z segment can use safe recycled products and they will be informed about Green Hotel in a form of attractive story telling.

#### **5. Conclusion and Limitations**

This research has presented a study on the perception of the generation Z in Jakarta, Indonesia towards the green hotel practices as something that affects the service quality and customer loyalty to a hotel. From the result obtained, it is shown that green hotel practices have positive influence towards the generation Z's view of service quality and customer loyalty. This further affects to the hotel customer's satisfaction of service quality and the customer's intention on going back to the same hotel. As all these variables have positive relation towards each other, it can be concluded aligning to the purpose of this research that generation Z customers would most likely be satisfied and devoted with hotel brands that apply green hotel practices which includes water saving, energy saving, and waste management.

The result of this study supports the findings of some previous studies which reported the behaviour of the consumer who is ecologically conscious. These consumers would highly consider





to purchase from companies with higher level of responsibility. Manaktola and Jauhari[40] also confirmed that the accommodation industry, ecologically conscious customer would choose to be more eco-friendly in their purchase. As the implication of this research, it is important for the hotels to start the green hotel practice in their establishments, since the future stakeholders have shown their concerns regarding this issue.

This research has some limitations: (1) The sampling method used was non probability sampling, so that the result could not be generalized; (2) The location of hotel being observed is only towards three five star hotels in the area of Jakarta; (3) The hypotheses are focusing only on the relationship of Green Hotel Practice with Service Quality and Customer Loyalty.

There are some recommendation for further study: (1) It is highly recommended for the next study to use probability sampling for the same research gap; (2) The future research might enlarge the hotels location as the observed objects; (3) Researcher should be more widely research on more variables that can be used as a green hotel attributes.; (4) Researcher should be more widely opened by using more hypothesis that can be useful for hotels to implement green hotel attributes such as: measure the first order SEM with three exogenous variables (WS, ES & WM) that are affecting service quality variable and customer loyalty; and measure the relationship of Service Quality and Customer Loyalty in the hotels that practicing Green Hotel concept.

There are some recommendation for further study: (1) It is highly recommended for the next study to use probability sampling for the same research gap; (2) The future research might enlarge the hotels location as the observed objects; (3) Researcher should conduct a wider research on more variables that can be used as a green hotel attributes.; (4) Researcher should be more widely opened by using more hypothesis that can be useful for hotels to implement green hotel attributes such as: measure the relationship of Service Quality and Customer Loyalty in the hotels that practicing Green Hotel.

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