

# Luxury Hotels' Eco-Friendly Activities & Customers' Preferences and Willingness to Pay for Green Hotels

El-Nemr Nadia, Canel-Depitre Beatrice, Taghipour Atour  
Normandie Univ, UNIVHAVRE, NIMEC, 76600 Le Havre, France

E-mail: elnemrnadia@gmail.com, beatrice.canel@univ-lehavre.fr, atour.taghipour@univ-lehavre.fr

**Abstract**—Understanding customers' attitude and preferences toward ecological activities may help hoteliers enhance and adjust their strategies and environmental programs in order to suit customers' expectations. Therefore, this study examined hotels' eco-engagement level and managers' perception and attitude toward green activities. Moreover, a questionnaire was designed in order to inspect potential customers' attitude toward green practices. Results have shown that there is a gap between managers' perceptions and the real attitude of potential customers. Therefore, few suggestions were provided to help hotel managers adjust their strategies.

**Index Terms**—hotel industry, green activities, environmental practices, customer practices, customer preferences, Lebanon

## I. INTRODUCTION

Tourism industry is one of many industries that depends on environmental surroundings and conditions. Pigram (1995) suggest that "Tourism can certainly contribute to environmental degradation and be self-destructive. It also has the potential to bring about significant enhancement of the environment" [1]. Thus, tourism can contribute to the enhancement of its surrounding or harm it drastically.

It is believed that the hotel industry consume large amounts of energy, water and non-durable products because of the complexity and diversity of its offered products and services [2]. The hotel industry damage the environment by over consuming non-durable goods, water and energy and pollute it by emissions that affect the air, water and soil [2]. However, hotels are one of the most important industries within the tourism industry, and therefore, it has a great interest in protecting the environment for many reasons. First, a main part of the core product offered by hotels is its surrounding and localization; this include fresh air, beautiful and clean beaches, forests and gardens, etc. Moreover, customers nowadays are more educated and aware of environmental issues and becoming more responsible which has led to considerable changing in their purchasing behavior, travelling reasons and the choice of destination [3].

In developed countries, the government, the society and customers puts pressure on the lodging industry

which has led to increase their engagement in protecting the environment and met a minimum obligations related to this issue [2]. Unfortunately, in developing countries, there is a lack of civil and governmental pressure. Moreover, in case of the existence of regulations and rules, they are rarely implemented because of the lack of resources and the lack of control by concerned organism (Kasim, 2009). In addition, in developing countries, economic growth is prioritized at the expense of the environment. Consequently, even if hoteliers in these countries are aware of the importance of protecting the environment and take initiatives, the lack of resources and the desire to achieve economic development and gain stop them from doing it [4].

Empirical work on the implementation of green practices and its acceptance at hotels in developing countries is still relatively rare. Moreover, the lack of environmental commitment in these countries oblige customers to choose a hotel room from what is available, although some customers may prefer eco-hotels if they exist. Therefore, this study has two objectives. The first question to be answered is how luxury hotels, who are supposed to have resources, are responding to the emergence of environmental issue in the hotel sector? In order to investigate this, the research aims to provide answers to questions such as (1) what are the practices implemented in the studied hotels? (2) Are they aware of the advantages & importance of being eco-friendly? (3) And what can be done to improve hotel actions toward the environment? The second objective of the study is to understand customers' attitude toward the environment and the effect of this issue on their hotel selection.

## II. METHODOLOGY

This study is divided into two parts. The first part was conducted with hotel managers. It was designed as a survey research combining qualitative and quantitative data. A simple questionnaire was filled by managers including fourteen variables. Respondents were asked to specify if these variables were available and applicable at the hotel. The purpose of this part is to analyze environmental engagement of interviewed hotels. The qualitative data were collected through interviews with hotel managers. This part of the study was devoted to study professional's perception of environmental

practices and gain insights on their perception of customer's vision about green practices. The interview was divided into three parts. The first part included questions related to the general demographics and information related to the hotels. The second one included questions related to the importance of eco-variables for hotel choice by customers, their willingness to pay (WTP) and the increase of positive word of mouth (WOM). The third part was related to managers' awareness and opinion of the role of eco-friendly practices in affecting the image of the hotel and the luxury experience and the possibility to gain competitive advantages. And the last part was devoted to understand hotels' eco-programs if any available, and managers' suggestions how hotels may be more engaged in protecting the environment. The theoretical population was defined as upscale hotels in the capital city of Lebanon, Beirut. This sample includes 4 star and 5 star hotels located in central Beirut. The sampling frame was determined by checking the list of hotels on beirut-hotel.com and Expedia.com. 78 hotels were identified. All these hotels were contacted by phone to solicit a meeting with one of available managers. It was difficult to obtain cooperation from the management especially those working in 4 star hotels. At the end, we were able to conduct 35 interviews. The quantitative part of the study was addressed to potential customers. An online survey was designed including two parts. The first part aims to measure eco-friendly attitudes. We have adopted 7 items from [5]: two items to measure the severity of environmental problem, two items to measure the importance of being environmentally friendly, one item to measure the level of responsibility of corporations, and two items to measure the inconvenience of being environmentally friendly. These questions use a 5-point Likert-type scale, with anchors of 1= strongly disagree to 5= strongly agree. The questionnaire included other questions related to customers' green attitude at home, willingness to pay, recommending eco-hotels, hotel choice and preferences. The second part collected demographic information about respondents. This questionnaire was shared online during one month in April 2019 targeting French customers who spend at least one night at the hotel per year. French customers were chosen as this market is constantly growing in the Lebanese hotel market [6]. After excluding incomplete responses, 119 questionnaires were used for the analysis.

### III. FINDINGS

#### A. Part I: Managers' Interviews

##### 1) General demographics & tourism activity

Lebanon is a small country located on the eastern edge of the Mediterranean Sea. The country is very rich and diverse in its culture, history and atmosphere, making it an important tourism destination in the Middle East. The service sector, that mostly rely on banking and tourism, is well developed in Lebanon and represents 73% of GDP (2002). In 2017, the tourism sector accounts for 19.4% of GDP. The number of international arrivals

surpassed 1.9 million in 2017 (The World Tourism Organization). 588,706 arrivals were European, 301,604 were American arrivals, 74,750 and 125,097 arrivals from Oceania and Asia, and 523,930 were Arab arrivals.

Beirut is the capital and the largest city of Lebanon. Almost all economic activities are concentrated in the capital, especially services. Central Beirut locate almost 100 hotels. According to Ernst & Young's benchmark survey, the occupancy rate in the first ten months of 2017 was 65.8% in Beirut hotels. The average room rate was USD 154 and the revenue per available hotel room was USD 101 [6]. Moreover, the survey indicated that four and five star hotels in Beirut were amongst the best performers in the MENA<sup>1</sup> region.

Concerning the hotels included in this study, 21 of them are rated five star, and however, just 10 of them consider themselves luxurious hotels. 26 of these hotels are affiliated to a chain from which 18 offer a loyalty program. These hotels fall into different categories based on their size. When hotels are classified based on their size, they are divided into 4 groups: small (fewer than 25 rooms), medium (25 to 99), large (100 to 299) and major hotels (more than 300). The majority of 4 and 5 star hotels in Beirut fall into medium and large categories.

Beirut is a coastal city, which gives some hotels more advantages by being located in the city center and offering a sea view rooms at the same time. 12 hotels are benefiting of this advantage, mainly these hotels are five star resorts. The average occupancy for low seasons is 43.7%, with an average price of \$130. In high seasons the occupancy average increases to 81.5% with \$223 as an average room rate. While the average price obtained in low seasons is \$130, it is still possible to find rooms at \$60 from one side and others at \$250 from the other side. The same difference is noticed in high seasons, where some rooms are sold at \$100 and others at \$450. Most of these hotels are business oriented properties. Many companies negotiate contracts and reserve rooms for the whole year, what allows many hotels to be in the safe side all year long. This may explain the acceptable occupancy percentage in low seasons. This percentage is importantly increased in high seasons due to the added leisure travelers in booking hotel rooms.

Interviewed managers claimed that previously the main guests of 4&5\* hotels are Arabs and were representing more than 75 % from total guests. However, recently, the market is changing, and the number of Europeans and other nationalities such as American, Turkish, Chinese and Korean is increasing. European tourists accounted for 35.7% in September 2018, compared to 24.62% in 2008.

##### 2) Implementation of eco-friendly activities

The purpose of the simple questionnaire addressed to hotel managers was to identify the eco-friendly practices implemented in the studied sample. Table I shows the percentage of each variable and its applicability in the hotels. Results has shown that at least one green practice is implemented in all hotels. Moreover, all practices were

<sup>1</sup> Middle East and North Africa Region

found to be implemented in the studied hotels except “eco-guest program” variable that is not implemented anywhere. This variable means that hotels reward customers for their green attitude and environment respect.

Table I shows that the majority of hotels use keycards (97.1%), LED bulbs (88.6%), Linen & Towel reuse program (71.4%) and water control usage (60%). However, fewer hotels have an environmental certification (22.9%) or certified as a green hotel (11.4%). Refillable shampoo dispenser is rarely used in those hotels (5.7%) and fewer are implementing a green purchasing policy (11.4%). Practices that are applied by the majority of the hotels allow cost reduction which may prove the findings of previous studies that suggest that tourism industry implement eco-friendly activities only if this employment reduces operating costs [7].

Recycling bin in lobby and recycling old beds and mattresses are two variables that are implemented in 31.4% and 45.7% of studied hotels respectively. However, these percentages does not represent accurately these variables. All managers that claimed that these variables are practiced in their establishments clarified that is not exactly what is happening. Managers explained that the recycle bins are in reality available in their back offices and it is often used to recycle papers. Also, old beds and mattresses are not recycled, but rather, they donate them to charities. It is important to note that, in Lebanon, recycling centers are limited and municipalities doesn't offer any recycling programs.

TABLE I. THE PERCENTAGE OF HOTELS APPLYING OR NOT EACH OF THE GREEN PRACTICES

Green Variable	Available at the hotel (%)	
	Yes	No
Environmental certification	22.9	77.1
Recycle bin in lobby	31.4	68.6
Recycle bin in guest rooms	11.4	88.6
Refillable shampoo dispenser	5.7	94.3
Occupancy sensor	48.6	51.4
Keycard to turn power to the room on and off	97.1	2.9
Energy efficient light bulbs in guest rooms	88.6	11.4
Linen and towels reuse program	71.4	28.6
Hotel is certified as a green hotel	11.4	88.6
Water control usage	60	40
Recycling old beds and mattresses	45.7	54.3
Eco-friendly guest programs	0	100
Eco friendly training for managers and staff	60	40
Green purchasing policy	11.4	88.6

According to these answers, the majority of the studied hotels implement less than the half of the studied variables, thus less than seven green practices. Only 9 hotels implement more than seven green practices. The latter, are those hotels who have an environmental

certification explaining their engagement in protecting the environment.

### 3) The effect of eco-practices on hotel choice, WTP & WOM

As mentioned earlier, the second part of open-ended questions was related to managers' perception on their customers related to the importance of eco-variables for them when choosing a hotel, its effect on their willingness to pay (WTP) and the increase of positive word of mouth (WOM). Concerning the importance of eco-friendly practices for hotel choice by customers, managers argued that the level of importance is relative to the destination choice and the nationality of customers. Managers explained that in Lebanon, there is no real ecological hotels in the upscale category. Also, those who are implementing some green practices are limited. Therefore, when choosing a hotel in Lebanon, it is quiet impossible to stick to the green-attitude because there is no eco-options. From the other hand, concerning tourists, managers agreed that it depends on their nationalities. They claimed that Arab tourists may lack environmental awareness and education, thus, making it a non-important variable at all. They assume that tourists from Arab countries do not care, in contrary, they appreciate luxury and wouldn't be happy if its level would be affected by green initiatives. In contrary, managers suggested that non-Arab customers, especially European, if have the choice, they would prefer to choose a hotel engaged in protecting the environment. Managers explained that education and awareness are very important and this is what is making the difference between different nationalities and their attitude toward the environment. However, all managers agreed that green initiatives will not affect customers' willingness to pay, reversely, they suggested that green engagement may push some customers to question hotel rates, as educated customers know that eco-practices help reducing operating costs. Furthermore, some managers agreed that green initiatives might contribute to positive WOM, but also it depends on customers' nationalities. This claim is also consistent with previous results. Dief & Font (2010) showed that Western European markets stood out as the most powerful predictor of green marketing strategies. Also, Ayuso's (2006) suggests that customers' environmental concerns depend to a great extent on their nationality, with Western Europeans being more willing to collaborate in environmental initiatives [8].

### 4) Eco-friendly practices effect on hotel image, luxury experience & competitive advantages.

The third part of the interview discussed the effect of eco-friendly practices on hotels' image, the luxury experience and if it may offer a competitive advantage to the property. The majority of interviewed managers agreed that green initiatives may enhance the image of the property. However, despite this positive perception, only 17% of the studied hotels use eco-practices in their marketing advertising because they consider it a waste of money and time. They do not consider that eco-friendly activities offer any competitive advantage to the firm.

Many studies in marketing and consumer behavior argued that the image of a firm may widely affect the buying behavior of customers [9]. Thus, managers must understand the importance of promoting their green activities and spread awareness on environmental issue to help educate customers and gain therefore a competitive advantage. According to a study conducted by Han et al. (2009), customers who have a green attitude in their daily lives, they appreciate green hotels, they are willing to pay more for these hotels and recommend it. These findings must push managers to reconsider their strategies and marketing campaigns. Concerning the effect of green practices on luxury experience, the majority of managers are supporting eco-practices if it doesn't affect the quality of service and the luxury experience as these two are the essence of upscale hotels in Lebanon. The majority of managers consider that when customers have the choice to implement or not a green practice, for example reusing or not the linen and towels, it won't harm the luxury experience. Moreover, some managers argued that in luxury hotels it is better to implement non-seen initiatives, for example recycling and green purchasing policies. Conversely, the majority considered that some eco-practices are not acceptable at all like refillable shampoo dispensers because it damage not only the luxury experience but also the hygiene. Biodegradable amenities were also chosen to be not appropriate for a luxury property because of its low quality and cheap aesthetics. Some managers also considered that linen & towel reuse program is not compatible with guests' expectations of a luxury experience.

##### *5) Eco-programs and suggestions to protect the environment*

The last part of the interview was devoted to understand hotels' eco-programs if any available. Whether the purpose of implementing environmental practices is to save the environment or reduce cost, many hotels incorporate eco-programs in their activities. All hotels that implement an eco-program are affiliated to an international chain. This helps understanding their engagement despite the lack of society's environmental awareness and government regulations and laws. However, independent hotels assured that the main reason of their lack of eco-engagement is caused by the lack of resources and the high investment required for ecological installations. Those hotels that implement ecological programs belongs to five international hotel groups that are: Radisson Hotels, Hilton Worldwide, Mövenpick Hotel & Resort, Intercontinental Hotel Group and Rotana Hotels. Radisson Hotels program's name is "THINK PLANET". This program is interested in carbon reduction, water conservation, waste minimizing, responsible resources, green meetings (to spread awareness) and ecolabels. More than 450 Radisson hotels have an ecolabel. One of these hotels is Radisson Blu Martinez Beirut that is the first hotel in Lebanon to be designated with "Green Key" Certificate by achieving full environmental certification for environmental conservation. In order to obtain this label, the hotel was

required to fulfil the majority of eco-practices list that includes: Environmental Management, Staff Involvement, Guest Information, Water and Energy Consumption, Washing and Cleaning, Waste, Food and Beverage, Indoor Environment, Parks and Parking Areas, and Green Activities. Hilton Hotels program's name is "Travel with Purpose". Hilton group is the first major hotel company that launched a science-based targets; they are planning to reduce greenhouse gas emissions and recycle & reuse 100% of used soap by 2030. The program is concerned with reducing carbon emission, energy & water consumption, waste and responsible resourcing. In Lebanon, Hilton hotels' eco-initiatives include energy and water saving projects and recycling. Due to "Travel with Purpose" program, Hilton Beirut has succeeded to achieve \$253 000 in cumulative savings in 2015. This success was due to the replacement of four generators with more efficient models. Moreover, they have installed water saving devices into the faucets and showers in all guestrooms. In addition, they recycled around 2,450 kilograms of paper and 460 kilograms of plastic. "Rotana Earth" is the sustainable program of Rotana Hotels. In addition to energy & water savings, waste reduction and chemical use, this program include food strategies that aims of decreasing the quantity of food waste and donate the excess food to charities. Mövenpick Hotels & Resorts aims to reduce and optimize its consumption through the use of basic measures, such as energy efficient lighting, water consumption reduction and better management of waste and chemical use. The hotel commitment goes beyond environmental and employee sustainability, to also encompass social sustainability. They support local and international charities, support local products and handicrafts, encourage team members to volunteer and implement donation schemes. Intercontinental Hotel Group (IHG) also developed its Green Engage Program to reduce waste, develop recycling strategies and increase donation to charities and non-governmental organizations (NGOs).

Also, we asked managers their opinion how hotels may be more engaged in protecting the environment. Managers argued that protecting the environment is an important issue to be considered by any organization, especially tourism related industries, as the tourism is heavily affected by environmental conditions. Managers agreed that there is a lot of work to be done by the hotel industry in Lebanon to enhance their eco-positioning and contribute to lowering the pollution and harm affecting the environment. First of all, the majority of managers agreed that changing bulbs to LED lights, incorporating linen & towel reuse programs, Key Cards, not printing unless it is important, decrease paper consumption and recycle it, and decreasing food waste are all simple and possible steps to be implemented by any hotel. Some managers suggested that accepting less packages and using biodegradable products are also efficient ideas yet simple for implementation. Few hoteliers suggested that the most important step is spreading awareness and education among employees and customers. Training and

education programs are important among employees which help them understand the importance of sustainable programs and the danger encountering our lives if no actions were taken. Managers believe that raising education and awareness may encourage green attitude. Moreover, respondents consider that not all customers fully understand the importance of green practices, especially those that may affect their experience and stay at the hotel. Thus, the importance of spreading information about green initiatives and its importance is a must. This can be done at the hotel reception during check-in and through marketing campaigns. Also some managers suggested using TV screen ads or applications to communicate all hotel services and useful information about the hotel (facilities, room service menu, telephone codes...) instead of paper menus and brochures that guests can find in their rooms.

After conducting interviews with hotel managers in Lebanon, we have noted that environmental practices are still very modest in these hotels and are especially implemented to reduce operating costs. It was noticed that the majority of managers consider that customers are not aware and do not care about the environment. However, an important number of studies have confirmed that customers who have a green attitude will likely be interested in purchasing green products, will have a positive intention to pay more for green products and recommend it [5]-[9]. Furthermore, the theory of social identity suggests that some individual perceptions toward the environment may affect their willingness to pay, namely, the severity of ecological problems, the importance of having an eco-friendly attitude and the level of eco-responsibility of corporations [10]. Therefore, we thought it important to suggest and test few hypothesis ( $H_1$ ;  $H_2$ ;  $H_3$ ;  $H_4$ ) that were adopted from Baker, et al. (2014) study, in order to analyze consumers' behavior toward hotels engaged in eco-friendly practices, especially that the market in Lebanon is shifting from Arab tourists to Europeans, to be able to give convenient advices to hotel managers in order to enhance their performance and attitude toward the environment. For this, we have developed a questionnaire addressed to one of the largest target markets of Lebanese hotels, the French market. Based on Cronbach's alpha, scales were acceptable ranging from 0.58 to 0.82 (see Table II).

**“Hypothesis 1:** Perceptions of the importance of being environmentally friendly positively affect willingness to pay more for a green hotel.

**Hypothesis 2:** Perceptions of the severity of the environmental problem negatively affect willingness to pay more for a green hotel.

**Hypothesis 3:** Perceptions of the level of responsibility of corporations positively affect willingness to pay more for a green hotel.

**Hypothesis 4:** Perceptions of the inconvenience of being environmentally friendly negatively affect willingness to pay more for a green hotel.”

## B. Part II: Customers' Questionnaire

### 1) Descriptive results

The majority of respondents were female representing 70%. Respondents were all above 18 years old. The majority of respondents (41%) were between 21 and 30, followed by 30 percent aged between 31 and 40. (14) percent were between 41 and 50, (10) percent were between 51 and 60, and only (5) percent were above 60. An important number of respondents (45.4%) hold a Ph.D. degree and a master's degree (32.8%) which indicates that the majority of respondents are highly educated. All respondents claimed staying at least one night per year in a hotel. 25 percent of respondents reported staying between 4 & 6 nights per year in a hotel, 13.5 percent reported staying between 7 & 9 nights, and 30.7 percent claimed staying more than 10 nights in a hotel room per year (see Table III).

Results have shown that the majority of respondents practice at least one environmental activity in their daily life. 79.8 percent of respondents claimed to recycle, reuse and more which indicates the high responsibility of respondents toward the environment at least at home. Only 5.9 percent of respondents claimed to practice no activity. 56.3 percent of respondents claimed that ecological engagement of hotels doesn't affect their choice. However, 88.2 percent of respondents are willing to recommend a green hotel or a property engaged in eco-activities. Moreover, (70.6) percent of respondents are willing to pay more for environmentally engaged hotels, among which 19.1 percent are ready to pay more than € 10, (27) percent are ready to pay between € 7-€ 10, (37.1) percent are ready to pay between € 4- €6 and (16.9) percent are ready to pay less than € 3. (46.2) percent of respondents claimed to prefer saving the environment at the expense of their comfort in a hotel room, and 92.4 percent of respondents are ready to give up the luxury experience (all what is related to luxury) in favor of the environment.

TABLE II. BASED ON CRONBACH'S ALPHA, SCALES WERE ACCEPTABLE RANGING FROM 0.58 TO 0.82

Measurement of items			
Variable		Measurement item	
Severity of environmental problem	of	In our country, we have so much electricity that we do not have to worry about conservation	.759
		The earth is a closed system where everything eventually returns to normal, so I see no need to worry about its present state	
Inconvenience of being environmentally friendly	Recycling is too much trouble		.591
Importance of being environmentally friendly	Recycling will reduce pollution	Keeping separate piles of garbage for recycling is too much trouble	.753
		Recycling is important to save natural resources	
Level of responsibility of corporations	Companies are concerned about the environment	Companies are concerned about the environment	.823
		Companies are responsibly acting toward the environment	

### 2) Impact of eco-friendly attitudes on customer behavior

Multiple regression analysis was used to examine the effect of eco-friendly attitude on customers' intention to recommend a green hotel and their willingness to pay more for staying at an eco-friendly hotel. Results are shown in Table III.

The severity of environmental problem was found to be significant regarding the intention to recommend and the willingness to pay more. Thus, hypothesis 2 is supported. Our finding is different from Baker et al. (2014) who have found that this variable is insignificant and has no effect on customers' willingness to pay. Conversely, all other variables were found to be insignificant regarding the intention to recommend a green hotel. Our findings reinforce Barber et al. (2012) suggestions on the importance of measuring eco-friendly attitudes by using multiple dimensions because customers might be affected by some areas and not others which will affect their intention to stay and recommend and pay more.

TABLE III. SAMPLE CHARACTERISTICS

	%
Age	
Twenty-one to thirty	40.3
Thirty-one to forty	30.3
Forty-one to fifty	14.3
Fifty-one to sixty	9.2
Sixty-one or older	4.2
Gender	
Female	70.6
Male	29.4
Education level	
High school	0.8
Some College	2.5
Bachelor degree	18.5
Master degree	32.8
Ph.D.	45.4
Monthly income	
Less than €800	10.1
€800 - €1200	13.4
€1300 - €1800	31.1
€1900 - €2500	27.7
More than €2500	17.6
Relationship status	
Single	52.9
Married	38.7
Other	8.4
Nights in hotel per year	
One to three nights	30.8
Four to six nights	25
Seven to nine nights	13.5
Ten to twelve nights	12.5
Thirteen to fifteen nights	6.7
More than sixteen nights	11.5

TABLE VI. WTP &amp; WOM

		Intention to recommend			Willingness to pay more		
		$\beta$	t-value	Sig.	$\beta$	t-value	Sig.
Severity of environmental problem	-	.331	3.256	.001	.344	3.359	.001
Inconvenience of being environmentally friendly	-	-.250	.803	.424	.165	1.690	.094

Importance of being environmentally friendly	-	-.227	.821	-	-.272	.786
Level of responsibility of corporations	.021			.025		
	.031	.210	.834	.042	.434	.665

Furthermore, inconvenience of being environmentally friendly was found to have a positive effect on customers' willingness to pay, reversely to Baker et al. (2014) who have found this variable to have a negative effect on customers' WTP. Our finding may seem illogical, however, some studies suggest that customers' engagement in eco-friendly practices do not mean that they always choose green products, nor are they willing to pay premium for these products [11]-[12]. In addition, Ham & Han (2013) have found that the level of concern related to the environment is not an important factor when deciding to pay a premium price or to spread positive word-of-mouth [13]. Thus, our findings may suggest that some customers, even if they are not engaged in eco-friendly activities, and find it inconvenient for being environmentally friendly by themselves, they might be willing to pay more for green products.

#### IV. DISCUSSION

Our findings regarding hotels' environmental engagement and hoteliers' perception of customers' attitude, and customers' green attitude and their behavior toward staying, recommending and paying more for green hotels suggests many management strategies. First of all, managers must reconsider the importance of green activities and start investing in them, regardless of customers' attitude, because the first and most important attraction of a hotel is its location and surroundings. Environmental quality which refers to the quality of natural features of the destination, is considered to be an important competitive advantage and attraction for tourists in any destination [14]. Moreover, Sánchez-Ollero et al. (2012) suggested that, nowadays, environmental responsibility is influencing tourists' reasons for travelling and their choice of the final destination and service provider. Thus, Lebanese hotels must play an important role in saving the environment and the resources of the country, especially that Lebanon is already suffering from pollution and nature deterioration which has affected many tourism activities [15].

Our findings suggested that hotel's ecological engagement doesn't affect the choice of the majority of respondents (57%). This may be caused by the lack of information regarding corporate eco-responsibility. Paul et al. (2016) claim that customers' with high environmental concern are more likely to engage in eco-behaviors in order to preserve the environment [16]. Thus, spreading awareness, education and information about the importance of eco-friendly attitude and practices is a second strategy that must be considered by

hotel managers. Informing customers about environmental issue and the necessity of acting to stop nature deterioration is the first step to gain attention and attract new customers. Also, it may help change customers' attitude who may become more involved in green practices. In addition, Han & Hyun (2018) suggest that hoteliers might increase customers' pro-environmental decisions and behaviors through adding indoor signage that conduct a message of the seriousness of environmental problem and suggesting ways of a more eco-friendly behavior [17]. Moreover, hoteliers must use green activities practiced in their marketing strategies and advertisements in order to inform customers about corporations' responsibility and eco-engagement, which may help enhance hotel's image, and therefore, increase room sales and revenue [18]. Trang et al. (2019) proposed that for an effective marketing strategy, managers must improve three green-attitude factors that have an impact on customers' behavior; "customer benefit", "energy efficiency" and "green characteristics". So first, marketing campaigns must share hotel's eco-friendly practices and communicate the importance of these actions for customers' well-being and health. Second, hotels must share their achievements and savings due to the green practices. And finally, it is important to incorporate green architecture in hotels which may help to emphasize the green image and gain a competitive advantage [19].

If hotels want to charge a premium for environmental engagement, it is important to explain that the extra amount is going for eco-investment, which will help hotels avoid competition that is based on pricing.

In addition, the analysis of the questionnaire has revealed that there is an important number of potential customers (70%) that are willing to recommend and pay more for green hotels. However, managers considered that it is impossible that customers may accept to pay more for green activities. Also, the majority of respondents claimed that they are ready to give up luxury in favor to save the environment. However, only (46%) of respondents are ready to sacrifice their comfort. Therefore, managers must ensure to implement green activities that doesn't affect clients' comfort. In addition, managers may leave the option for customers' in some ecological activities that may affect their stay, for example customers' may choose or not changing their towels and linen. Also, hotels may help decrease the perception of inconvenience of having a green attitude by providing recycling bins in guest rooms and hotel lobby for example.

## V. CONCLUSION

More and more, hotels are becoming more interested in saving the environment by including environmental management strategies in their operations [1]. Nevertheless, the current findings suggest that studied hotels need to do more efforts in order to become responsible toward the environment. Moreover, comparing interview and questionnaire analysis suggest that there is a huge gap between managers' perception

and real attitude of customers. Thus, hoteliers must conduct research and studies to have a clearer idea regarding customers' perceptions, preferences and attitude. Our study suggested an unexplored opportunity for hotels in Beirut to gain a competitive advantage, attract new customers, justify premium prices and enhance their image and level of corporate responsibility. Finally, future researchers are suggested to explore the green attitude and behavior of other new emerging markets such as the Russian and Chinese markets. Moreover, it is possible to compare between different types of customers such as business and leisure groups. Also, including more variables to the same study may be interesting.

## CONFLICT OF INTEREST

There is no conflict of interest.

## AUTHOR CONTRIBUTIONS

EL NEMR NADIA: Conducted the research, analyzed the data and wrote the paper. CANEL-DEPITRE & TAGHIPOUR Contribution: Guiding the first author and giving advice during the work. All authors had approved the final version.

## ACKNOWLEDGMENT

This project (CLASSE 2) is funded by the European Union. Europe is committed in Normandy with the European Regional Development Fund. This document commits only the University of Le Havre, the managing authority is not liable for any use that may be made of the information in this publication.

## REFERENCES

- [1] I. Mensah, "Environmental management practices among hotels in the greater Accra region," *International Journal of Hospitality Management*, vol. 25, no. 3, pp. 414-431, 2006.
- [2] N. Erdogan and E. Baris, "Environmental protection programs and conservation practices of hotels in Ankara, Turkey," *Tourism Management*, vol. 28, no. 2, pp. 604-614, 2007.
- [3] J. L. Sánchez-Ollero, A. Garc ía-Pozo, and A. Marchante-Mera, "How does respect for the environment affect final prices in the hospitality sector? A hedonic pricing approach," *Cornell Hospitality Quarterly*, vol. 55, no. 1, pp. 31-39, 2014.
- [4] A. Kasim, "Managerial attitudes towards environmental management among small and medium hotels in Kuala Lumpur," *Journal of Sustainable Tourism*, vol. 17, no. 6, pp. 709-725, 2009.
- [5] Laroche, Michel, J. Bergeron, and G. Barbaro-Forleo, "Targeting consumers who are willing to pay more for environmentally friendly products," *Journal of Consumer Marketing*, vol. 18, no. 6 pp. 503-520, 2001.
- [6] Bankmed, *Analysis of Lebanon'S Travel and Tourism Sector*, Beirut: Market and economic research division- bankmed, 2017.
- [7] S. Akis, "Surdurulebilir turizm: Bir alan aras-tırmasının sonuc-ları (Sustainable tourism: Results of a field research)," *Anatolia Turizm Aras-tırmaları Dergisi*, vol. 12, no. 1, pp. 17-25, 2001.
- [8] S. Ayuso, "Experience of Spanish hotels," *Corporate Social Responsibility and Environmental Management*, vol. 13, no. 4, pp. 207-720, 2006.
- [9] H. Han, L. T. J. Hsu, and J. S. Lee, "Empirical investigation of the roles of attitudes toward green behaviors, overall image, gender, and age in hotel customers' eco-friendly decision-making process," *International Journal of Hospitality Management*, 2009.
- [10] M. A. Baker, E. A. Davis, and P. A. Weaver, "Eco-friendly attitudes, barriers to participation, and differences in behavior at

green hotels," *Cornell Hospitality Quarterly*, vol. 55, no. 1, pp. 89-99, 2014.

- [11] Y. Kim and H. Han, "Intention to pay convention-hotel prices at a green hotel—A modification of the theory of planned behavior," *Journal of Sustainable Tourism*, vol. 18, no. 8, pp. 997-1014, 2010.
- [12] J. S. Lee, L. T. Hsu, H. Han, and Y. Kim, "Understanding how consumers view green hotels: how a hotel's green image can influence behavioural intentions," *Journal of Sustainable Tourism*, vol. 18, no. 7, pp. 901-914, 2010.
- [13] S. Ham and H. Han, "Role of perceived fit with hotels' green practices in the formation of customer loyalty: Impact of environmental concerns," *Asia Pacific Journal of Tourism Research*, vol. 18, no. 7, pp. 731-748, 2013.
- [14] T. Mihalič, "Environmental management of a tourist destination: A factor of tourism competitiveness," *Tourism Management*, vol. 21, no. 1, pp. 65-78, 2000.
- [15] N. Aglaia, "How to create value from climate change: A guide for your company in Lebanon," *European Commission & Lebanon Climate Act*, 2017.
- [16] J. Paul, A. Modi, and J. Patel, "Predicting green product consumption using theory of planned behavior and reasoned action," *Journal of retailing and consumer services*, vol. 29, pp. 123-134, 2016.
- [17] H. Han and S. S. Hyun, "Eliciting customer green decisions related to water saving at hotels: Impact of customer characteristics," *Journal of Sustainable Tourism*, vol. 26, no. 8, pp. 1437-1452, 2018.
- [18] H. Han, L. T. J. Hsu, J. S. Lee, and C. Sheu, "Are lodging customers ready to go green? An examination of attitudes, demographics, and eco-friendly intentions," *International Journal of Hospitality Management*, vol. 30, no. 2, pp. 345-355, 2011.
- [19] H. L. T. Trang, J. S. Lee, and H. Han, "How do green attributes elicit pro-environmental behaviors in guests? The case of green

hotels in Vietnam," *Journal of Travel & Tourism Marketing*, vol. 36, no. 1, pp. 14-28, 2019.

Copyright © 2020 by the authors. This is an open access article distributed under the Creative Commons Attribution License ([CC BY-NC-ND 4.0](https://creativecommons.org/licenses/by-nc-nd/4.0/)), which permits use, distribution and reproduction in any medium, provided that the article is properly cited, the use is non-commercial and no modifications or adaptations are made.

**Nadia El-Nemr** is a Ph.D. candidate in Management Science at Le Havre University in France. She holds a Master's degree in Tourism and Culture Engineering and a bachelor degree in Hospitality Management. She has an experience in hospitality and tourism industry.

**Atour Taghipour** is an Associate professor and the head of an international management master program at the University of Le Havre in France. He holds a PhD in Industrial Engineering from the Polytechnic School of Montreal in Canada. He received two masters' degrees, one in Management, Logistics & Strategy and other in Industrial Engineering. He has more than ten years of experiences as a manager in automobile industries. He has published two books and many research papers in international journals. His areas of research are supply chain and operations management.

**Béatrice Canel-Depitre** is an Associate professor and director of NIMEC laboratory. She holds a PhD in Management Sciences and an Authorization to manage researches. Her themes of research concern management of ecological risk within the company and more widely the integration of a strategy of sustainable development within the company. Her works handle on the social responsibility of the company through its communication regarding sustainable development but also on the behavior of the economic and social actors in the face of the stake in sustainable development.