*i*Journals: International Journal of Social Relevance & Concern (IJSRC)
ISSN-2347-9698
Volume 11 Issue 1 January 2023

Environmentally sustainable hotels and resonance to their visitors

Author: Costas Assimakopoulos

Affiliation: Department of Organizations Management, Marketing and Tourism, International Hellenic University (IHU)

E-mail: casim@ihu.gr

DOI: 10.26821/IJSRC.11.1.2023.101210

ABSTRACT

The purpose of this paper is to investigate the perceptions of young travelers regarding the environmental sustainability of a hotel. Hospitality and tourism literature review depicts that few studies have investigated the value of Green practices that result in hotels sustainability and environmental care, from the traveler's perspective. In a highly competitive global market environment, managers realize that formulating and implementing green strategies and/or green human resource management strategies to reduce energy and water consumption, as well as reduce waste disposal, is critical to success and survival of the organism. However, it is quite interesting to find out whether this Green Management has as a side effect the attraction of guests that share environmental concerns. The Authors perform a field study using a sample of more than a hundred of tourists visited Halkidiki, a highly touristical region in Greece, and gather data regarding their knowledge and attitude toward the adoption of environmental friendly policies and simultaneously to investigate if the latter can lead to increased intention to visit hotels that implement such policies. The results are quite encouraging and pinpoint that ethical and green policies may have among others a positive result in reducing costs on the one hand and attract an existing dynamic market nest so that finally green policy can be a strategic decision of the hotels' management..

Keywords: Smart hotels. Quality of services. Hotel facilities. Environmental awareness.

1. INTRODUCTION

This paper is part of a survey to identify the andecendents of hotel visitors' intentions to visit a hotel. The survey needs to determine the moderators of customer's intention to visit based on two pillars: The environmental sustainable hotel which is a contemporary concern due to the energy crisis and the classical view which is based on the quality of services like wellness which is closely connected to one important purpose for visiting a hotel. The paper is organised as follows: In the next section a literature review is presented giving the background of the study. Then the methodology section follows giving the methodological steps followed to achive the aim and objectives of the research. Next, the results of the field research data are presented and a conclusions section ends the paper, discussing the oucomes and give some limitations and future work directions.

2. LITERATURE REVIEW

Sustainability has been called the key to solving current ecological, economic and development problems. For sustainable development, green energy can play an important role in meeting [1], [2] energy requirements in both industrial and local applications. Therefore, the development and utilization of green energy strategies and technologies should be given high priority for sustainable development in a country. Green energy sources and technologies are a key component of sustainable development for three main reasons [2]:

• They generally cause less environmental impact than other energy sources. The variety of green energy resources provides a flexible range of options for their use.

• They cannot be exhausted. If used carefully in appropriate applications, green energy sources can provide a reliable and sustainable energy supply almost indefinitely.

• They favor system decentralization and local solutions that are somewhat independent of the

national grid, thereby enhancing system flexibility and providing economic benefits to small isolated populations.

Business models (BMs) refer to a company's approach to creating, delivering and capturing value and its value proposition. They provide a holistic description of "how the business works" and how the business works and are strictly related to the concepts of strategy and innovation. One of the most widely used definitions of BM is provided by [2], who defines BM as "… the design or architecture of the value creation, delivery and capture mechanisms used". Such a definition highlights the three underlying and linked elements of value involved: i) value proposition (the features of the offering and how they will support differentiation for a particular target customer group); ii) value creation and delivery (the core activities, resources, capabilities and position in the value network that will enable the business to deliver the offering). iii) value capture (i.e. revenue model and cost structure based on BM) [3];

Sustainability as a BM is a multifaceted and complex concept that highlights the close links between environment and society and is used to suggest the profound changes needed to address the current environmental crisis and pursue a just economic system. According to the most widely used description, sustainability is supported by three interrelated pillars: environmental integrity, social equity and economic prosperity [4]. In this context, the concept of Triple Bottom Line (TBL) has been developed to refer to corporate sustainability and to emphasize its triple and interdependent nature in the business sector. Within this scenario, a sustainable business model (SBM) is "about creating significantly increased positive impacts and/or significantly reduced negative impacts for the natural environment and society through changes in the way a company and its network create , offer and extract value". Moving towards an SBM requires significant changes in business purpose so that sustainability is addressed at the core of the business and the activities in which the business operates.

Sustainability is an important issue in the hotel industry. There are more than 800 different global green hotel certifications according to the Green Hotel Association (GHA) whose "purpose is to bring together hotels that care about environmental issues." This association does not green certify, nor does it recommend green certifications because: "it is too expensive and time-consuming, and if a guest does not understand what a certain certification logo means, that logo or a piece of paper cannot make any difference to the guest" . However, GHA recommends that hotels obtain free surveys, audits and certifications from government and utility agencies for the improvement and marketing of hotel properties.

Consumers consider sustainability an important issue: 44 percent of U.S. travelers consider environmental impact important to them when planning trips. and environmental consciousness has become mainstream in the US [5].

Attitude of a person is his/her positive or negative will to perform a certain behavior. Simultaneously, it can be considered as the aggregate person's evaluation of a certain behavior. Environment as a notion creates positive customers attitude towards protection. Visitors' so called "green attitude" is affected by "green practices/actions" implemented by hotels, or resorts. Consumers' decision to be loyal to a hotel is moderated by the positive feeling perceived and the instant fulfillment of doing something good for the environment. Previous studies have shown that the environmentally friendly attitude of hotels' visitors positively affects their intention to stay at a green hotel, widen positive word-of-mouth commend, and willingly increase money expenditure for hotels that are engaged in green practices. Environmentally friendly attitude affect tourists' future intentions [6].

Choosing an environmentally friendly hotel can be considered as environmentally responsible behavior (ERB). The latter refers to actions of an individual that sustain the reduced usage of natural resources. Many studies have investigated the predictors of ERB [7]. Antecedents of ERB suggested in many studies include attitude, self-efficacy, individual responsibility, environmental awareness (or concerns), and behavioral intention. Most of these studies are based on the well-known Theory of Reasoned Action (TRA) or the extension of it, the Theory of Planned Behavior (TPB) [8], [9] to explain the moderators of ERB. TRA and TPB propose that an actual behavior is predicted by one's intention to perform that behavior and that behavioral intention is resolved by one's attitude toward that behavior. TRA and TPB provide green hotel practitioners with an important implication that investigating consumers' behavioral intention and attitude toward green hotel would be the first step to predict whether consumers would actually choose green hotels to stay [10].

As mentioned earlier, this perceived value is widely regarded as the antecedent of attitude [11]. Perceived value can also be an explanatory factor of behavioral intention. As TRA and TPB suggest, the reason attitude predicts behavioral intention is because attitude represents the degree to which an individual has a favorable or unfavorable evaluation of a particular behavior [8].

3. DATA AND METHODS

In this chapter, reference is made to the research objectives and the research methodology is described. The purpose of the research is to investigate tourists' intention to stay in a hotel that implements green practices, or otherwise in a green hotel. On the other hand the research conducted wanted to clarify whether green practices is a priority compared to the facilities regarding wellness, so that priorities could be distinguished and advice hoteliers accordingly.

3.1 Sampling unit and research population

The population under investigation consisted of units that are potential hotel visitors i.e. people over 18 years old that have an opinion about smart and green hotels, had visited one of them or know about the notions. So, filtering questions that could identify the eligibility of the sampling unit have been included to the questionnaire. The research population was geographically spread all over Greece and the period of the research took place from 1/10/2022 to 30/10/2022.

3.2 Determination of the sample size

Based on the formula of maximum error (between sample results and population actual opinion) regarding percentages of sample results reaching percentages like 50% the researcher decided to contact 170 members of the population. This results in a maximum error of + 4% for answers that are polarized. On the other hand a sample of that size is practically achievable and affordable regarding time limitations and costs. Thus, with the aim of collecting the largest possible sample in the shortest possible time, it is managed to collect a total of 172 fully completed questionnaires.

3.3 Sampling method

The geographically spread population and the lack of sampling framework made the random sampling method impossible. Nevertheless, measures had been taken for representative sample. Hence, actual percentages of the Greek population regarding some basic demographic characteristics according to the last census of the population (2021) of the Greek statistical authorities was considered and have been taken into account. Those were the percentages of the gender, age, occupation and income. So, a stratified approach was considered, using filtering questions first. The interviews were contacted with a telephone approach using numbers and phone codes that are geographically spread (not mobile phones).

3.4 Instrument for data gathering

The questionnaire consists of a total of eleven groups of questions. Their detailed description follows, as well as the identification of the research hypotheses. All of the groups of questions are 5-point Likert scales.

Initially, the first group of questions concerns the individual responsibility for environmental issues, which investigates the attitude of the respondents towards his/her concerns about the environment. This variable consists of a total of four statements.

The second group of questions concerns the multi-variable attitude regarding the possible stay in a green hotel, which investigates the respondents' attitude towards that and emotions created during a possible stay in a green hotel. This variable consists of a total of five statements.

The third group of questions concerns the multi-thematic variable Environmental awareness, which investigates their readiness towards protecting the environment. This variable consists of a total of seven statements.

The fourth group of questions concerns the multi-thematic variable environmental concerns, which investigate the respondents' actions towards the protection of the environment. This variable consists of a total of four items.

Subsequently, the fifth group of questions concerns the multi-thematic variable trust, which investigates their opinion about the capability that green hotels serve the scope of protecting the environment. This is crucial for someone with environmental mentality to visit a green hotel, as the latter is close to his/her attitude. This multi-item variable consists of a total of five statements.

The sixth group of questions concerns the multi-item variable accept the cost, which investigates respondents' to pay extra costs towards green hotels, for adopting new smart technologies for reducing the latter’s footprint over environment. This variable consists of a total of three concepts.

The seventh group of questions concerns the multi-item variable intention to stay, which investigates respondents' different levels of intention to stay to green hotels. This variable consists of a total of three statements. It is essential for the research as it is directly connected to the research main objectives.

The eighth group of questions concerns the implementation of green practices by green hotels, which includes six green practices.

The ninth group of questions concerns the implementation of green practices by the hotel customer, which investigates the respondents' actions towards reducing footprint when the customer lives in a hotel. The multi-item variable consists of four items.

Continuing, the tenth group of questions concerns the multi-item variable green practices against wellness services, which makes the comparison between those two pylons, the traditional aspect for hotels and the newly grown attitude for green hotels.

Finally, the eleventh group of questions concerns the demographic characteristics of the respondents.

3.5 Analysis

Firstly, precautions are taken to examine the reliability examination of the multi-variables using Cronbach's alpha method.

Applying deductive analysis, statistically significant relationships will be examined between respondents' demographic characteristics (Gender, Age, Occupation, Annual Income) and their intention to book in a hotel applying ERB. Thus, the resulting research hypotheses are as follow:

H1: Gender is related to the customer's intention to book in a hotel applying ERB.
H2: Age is related to the customer's intention to book in a hotel applying ERB.
H3: Occupation is related to the customer's intention to book in a hotel applying ERB.
H4: Annual Income is related to the customer's intention to book in a hotel applying ERB.
Next, statistically significant relationships between some multi-item variables and the intention to book (stay) in a hotel applying ERB will be examined [12]. Hence, the corresponding research hypotheses are formulated:

H5: Individual responsibility affects Intention to book (stay) in a hotel applying ERB.
H6: Attitude affects Intention to book (stay) in a hotel applying ERB.
H7: Environmental awareness affects Intention to book (stay) in a hotel applying ERB.
H8: Environmental concerns affects the Intention to book (stay) in a hotel applying ERB.
H9: Trust affects Intention to book (stay) in a hotel applying ERB.
H10: Accept the cost affects the Intention to book (stay) in a hotel applying ERB.
H11: Green practices by green hotels affect Intention to book (stay) in a hotel applying ERB.
H12: Green practices by the hotel customer affects Intention to book (stay) in a hotel applying ERB.

4. RESULTS AND DISCUSSION

The multi-item variables are checked for their inherent capability to consist measures as a whole. In order to check them for consistency, Cronbach's Alpha has been used. The results are depicted in table 1. All of them obtained an Alpha value that is greater than 0,65 which is an adequate threshold for proving reliability of the multi-item measure.

All measures present inherent consistency so they can be used to calculate new construct variables. On the other hand all of them present face validity and context validity so they are robust tools to be used in this paper.

Some demographics of our sample are presented below in Table 2. As it can be seen there has been a stratified sample regarding four main demographic characteristics. To obtain random samples without a sampling framework is quite difficult. However, efforts have been made to have a population profile representation in our sample. The majority of our sample is aged between 40-49 years old, half men half women. All main classes of occupation exist in the sample and the annual income of the overwhelmed majority is ranged from 10.000€ to 30.000€ (more than 67% of the sample.

4.1 Hypotheses testing

Regarding hypotheses testing and particularly testing hypotheses H1-H4, that checks the existence of a relationship between demographics and the intention for someone to book in a hotel applying ERB, it has been found that gender affects the intention to stay at a significance level of 0,1 (p-value 0,095) and annual income as well, at a significance level of 0,05 (p-value 0,031). Analysis of Variance has been used to examine demographics of the customers with their intention to stay in a hotel applying ERB.

Nevertheless, intention to book in a hotel applying ERB has been found to be positively affected by all construct variables excluding additional cost pay for green hotel strategies. The correlation coefficient in all cases is positive and strong (ρ>0,6) and statistically significant (p-value <0,001). Thus, visitors' attitude, trust, individual responsibility, environmental awareness, environmental concern, green practices by green hotels and green practices by consumers are all factors affecting their intention to stay in a green hotel. However, customers of green hotels do not seem to be ready to pay more money and support green strategies at an additional cost. This can be somehow justified by the long lasting economic crisis in Greece which lasts since 2009, with no periods of real reversion of the financial environment of a typical low and median economic strength. Thus, hypotheses H5-H9 and H11-H12 are verified. H10 has been rejected. In Table 3 the results of bivariate correlation is depicted.

Finally, an interesting outcome appears when customers are asked to chose between the notion of a green hotel and a hotel that offers wellness services and no green practices. They marginally prefer wellness services rather than green strategies. The latter is quite important and identifies that although green ideas and discussions are in the epicenter of modern societies, when it comes to costs and services "change" from the standards customers are not ready to sacrifice money or services for supporting green hotel sustainability. Hence, this means that the consumer although concerned for the environment, is conservative to changes with personal cost in Greece.

Table 1: Multi-item variable and Cronbach's alpha value

Multi-item variable	No Items	Cronbach's A
Individual responsibility	4	0,924
Attitude	5	0,729
Environmental awareness	7	0,742
Environmental concerns	4	0,684
Trust	5	0,795
Accept the cost	3	0,97
Intention to stay	3	0,726
The implementation of green practices by green hotels	6	0,822
Implementation of green practices by you	4	0,656
Comparison of the importance of green practices against wellness services	4	0,963

Table 2: Demographics of the sample

Gender	**Frequency**	**Percent**	**Valid Percent**	**Cumulative Percent**
male	87	50,6	50,6	50,6
female	85	49,4	49,4	100,0
Age				
18-29	28	16,3	16,3	16,3
30-39	42	24,4	24,4	40,7
40-49	48	27,9	27,9	68,6
50-59	36	20,9	20,9	89,5
>=60	18	10,5	10,5	100,0
Occupation				
student	15	8,7	8,7	8,7
private employee	36	20,9	20,9	29,7
public servant	35	20,3	20,3	50,0
freelancer	34	19,8	19,8	69,8
retired	39	22,7	22,7	92,4
Unemployed	13	7,6	7,6	100,0
Income				
0-10000	27	15,7	15,7	15,7

10001-20000	52	30,2	30,2	45,9
20001-30000	65	37,8	37,8	83,7
>30000	28	16,3	16,3	100,0

Table 3: Correlations among all construct variables of our survey

		Individual Responsibility	Environmental Awarness	Environmental Concerns	Accept Cost	Intention Stay
attitude	Pearson Correlation	,907(**)	,816(**)	,825(**)	-,045	,656(**)
	Sig. (2-tailed)	,000	,000	,000	,559	,000
	N	172	172	172	172	172
trust	Pearson Correlation	,949(**)	,876(**)	,861(**)	-,085	,685(**)
	Sig. (2-tailed)	,000	,000	,000	,269	,000
	N	172	172	172	172	172
Individual Responsibility	Pearson Correlation	1	,913(**)	,906(**)	-,076	,730(**)
	Sig. (2-tailed)		,000	,000	,324	,000
	N		172	172	172	172
Environmental Awarness	Pearson Correlation		1	,845(**)	-,061	,693(**)
	Sig. (2-tailed)			,000	,428	,000
	N			172	172	172
Environmental Concerns	Pearson Correlation			1	-,125	,679(**)
	Sig. (2-tailed)				,102	,000
	N				172	172
Accept Cost	Pearson Correlation				1	-,015
	Sig. (2-tailed)					,848
	N					172
GPGH	Pearson Correlation					,665(**)
	Sig. (2-tailed)					,000
	N					172
GPC	Pearson Correlation					,652(**)
	Sig. (2-tailed)					,000
	N					172

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

5. CONCLUSIONS

Contemporary tourism industry is changed day by day. Environmental sensitivity gains more and more interest to the consumers/hotel customers and visitors. They act environmentally and are aware of green strategies [13]. This paper has examined the modern notion of green hotels in the framework of environmental sustainability. It has been proven that peoples intention to stay in a so called green hotel is affected by some demographics (gender and income) and some other characteristics described above like trust, attitude, individual responsibility, environmental awareness, environmental concerns and green practices by hotels and by the consumer himself. However, when it comes to additional costs of services moderation (like

wellness services) the customer seems not to be ready to accept it.

Some limitation of this work is that there is no sampling framework so that it is not easy to create random samples. However, the study, has clarified some first important factors that hoteliers should take under consideration. A further research should overcome this limitation for results verification.

6. ACKNOWLEDGMENTS

This study is funded by the research committee of the International Hellenic University within the framework of the project with code number 21045 of the Research Committee, 2019-2022

7. REFERENCES

[1]. J D.J.Teece, Business models, business strategy and innovation. Long Range Plan, 43(2-3), pp. 172-194

[2]. I.Dincer, M.A. Rosen, "Exergy as a driver for achieving sustainability", International Journal of Green Energy, vol. 1(1), pp. 1-19

[3]. D. Alonso-Martinez, V.De Marchi, E.Di Maria, "The sustainability performances of sustainable business models", Journal of Cleaner Production, Vol.323, 2021, 129145, ISSN 0959-6526,https://doi.org/10.1016/j.jclepro.2021.129145

[4]. B. Purvis, Y. Mao, D. Robinson, "Three pillars of sustainability: in search of conceptual origins", Sustainability Science, vol. 14(3), pp. 681-695

[5]. C. Rheem, Going green: the business impact of environmental awareness on travel. Retrieved December 13 2022 from: www.phocuswright.com

[6]. H. Han, H.J. Yoon, "Hotel customers' environmentally responsible behavioral intention: impact of key constructs on decision in green consumerism", International Journal of Hospitality Management, vol. 45(1), pp. 22-33

[7]. M. Dharmesti, B. Merrilees, L. Winata, "I'm mindfully green: examining the determinants of guest pro-environmental behaviors (PEB) in hotels", Journal of Hospitality Marketing & Management, vol. 29(7), pp. 830-847

[8]. I. Ajzen, "The theory of planned behavior", Organizational Behavior and Human Decision Processes, vol. 50(2), pp. 179-211

[9]. S.S. Yeh,X. Guan, T.Y. Chiang, J.L. Ho, T.C.T. Huan, "Re-interpreting the theory of planned behavior and its application to green hotel consumption intention", International Journal of Hospitality Management, vol. 94(1), pp.1-11

[10]. M.F. Chen, P.J. Tung, "Developing an extended theory of planned behavior model to predict consumers' intention to visit green hotels", International Journal of Hospitality Management, vol. 36(1), pp. 221-230

[11]. J. Swait, J.C. Sweeney, "Perceived value and its impact on choice behavior in a retail setting", Journal of Retailing and Consumer Services, vol.7(2), pp. 77-88

[12]. M. Ahmed, Q. Guo, M.A. Qureshi, S.A. Raza, K.A. Khan, J. Salam, "Do green HR practices enhance green motivation and proactive environmental management maturity in hotel industry?", International Journal of Hospitality Management, vol. 94(1) pp. 12-20

[13]. Q.A. Nisar, S. Haider, F. Ali, S. Jamshed, K. Ryu, S.S. Gill, "Green human resource management practices and environmental performance in Malaysian green hotels: The role of green intellectual capital and pro-environmental behavior", Journal of Cleaner Production, vol. 311(8), pp.1-11