

Hotel Belmar: Analytical Review of the Challenges Facing an Eco-Hotel in Costa Rica

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ABSTRACT The owners of the Hotel Belmar, an eco-hotel in Monteverde, Costa Rica, were concerned about the acceptance of their sustainability practices by guests. In September 2013, the hotel had adopted a sustainability program and had applied it to their hotel, restaurant, garden, animal farm, and microbrewery. However, the owners had received complaints about issues arising from their environmentally friendly practices such as the presence of bugs and rodents, the lack of televisions in the rooms, and a problem with heat in the summer and cold in the winter due to the lack of heating and air conditioning in the hotel. Pedro, the hotel's manager, wondered how he could identify and reach guests who might enjoy the environmentally friendly eco-hotel and deal with the complaints that arose from the hotel's sustainable practices.

KEY MESSAGE

At the conclusion of reading the case, the reader should be able to reflect on the challenges of managing an eco-hotel and outline a marketing strategy for the hotel to attract travelers who would appreciate the benefits of staying in such a hotel.

INTRODUCTION

Concerns about degradation of the environment were increasing in the last part of the twentieth century and the first part of the twenty-first century [1]. As consumers recognized the importance of protecting the environment, conserving the world's resources became a major marketplace issue [2]. Along with those trends, emerged the development of the "green" or "eco-friendly" hotel industry. The Green Hotel Association issued the following statement in 2008 describing this type of lodging: "A green hotel is an environmentally-friendly hotel establishment that practices green principles and programs (e.g., water and energy savings or the reduction of solid waste and emissions) to help save the environment as well as to improve the hotel's effectiveness (e.g., cost savings)" [3]. This movement toward "green" hotels improved many of the hotels' ecological performance, reduced their operating costs, and enhanced their corporate image [4].

Some researchers have sought to identify the demographic characteristics of the consumers who would be interested in staying in an eco-hotel. Kim found that the typical traveler who would make such a choice would be a young female (18 to 34 years of age) [5]. Laroche, Bergeron, and Barbaro-Forleo verified that women were more concerned about the environment than were men, and they were willing to pay more for green products [6]. Research on tourism in Costa Rica also revealed that 57% of the visitors to the country were under the age of 45 and 82% were highly educated and had obtained at least a university degree [7].

Other researchers concentrated their work on discovering the type of communications that would appropriately adjust the traveler's expectations for the experience of staying in a "green" hotel. One study demonstrated that a high proportion of customers were willing to purchase green products, but only a few actually followed through and made such purchases [8]. Chang found that consumers tended to select products that were harmless to the environment due to emotional benefits of green-buying behavior (e.g., feeling proud), but they also considered the inferior quality and higher cost that often occurred with green products [9]. Kasim's research discovered that consumers were unlikely to give up the comfort and services provided by hotel firms to conform to the requirements of environmental practices [10].

In order to deal with these ambivalent feelings about eco-friendly hotels, Teng and Chang's research suggested that hotels should focus on the benefits and outcomes they desire from their environmentally friendly practices by utilizing effective communications before guests arrive at the hotel [11]. The researchers found that when those communications were received, these consumers were more likely to ignore the perception of potential costs and more likely to support the "green" efforts of the hotel. They suggested that making a consumer commit to a short-term decision would normally enhance the decision to also commit to a longer-term decision. For example, they suggested that when a consumer has made a reservation to stay in the eco-hotel several months in the future, it was wise to request that the consumer sign an environmental protection statement (short-term commitment) as a way to commit to the environment. Their research indicated that the signing action would further enhance consumer intention to pay a premium price for an eco-friendly guest room (longer-term commitment).

The research of Han, Hsu, and Lee suggested that managers of a green hotel should actively inform less environmentally conscious groups that eco-friendly purchasing exerted a positive influence on the environment [12]. Therefore, the managers should attempt to convince consumers through media and advertising campaigns that protecting our environment is everyone's responsibility. These researchers also advised that to increase market share, a green hotel should undertake positioning efforts in the ecologically conscious market. Although more expensive in the short run, these efforts should help to turn less environmentally conscious people into supporters and purchasers.

Ellen, Weiner, and Cobb-Walgreen found that in order to motivate eco-friendly customers to increase the frequency with which they stay in environmentally friendly lodging, it appeared to be essential for the managers of the hotels to provide feedback to consumers, explaining that they have made a positive difference because of their decisions [13].

In September of 2013, Hotel Belmar adopted a sustainability program. The objectives of the program were as follows:

1. Improve the environmental performance of the hotel.
2. Manage the responsible use of the ecological services and human talent.

3. Promote guest performing practices that positively impact the environment and society.
4. Contribute to the economic and socio-cultural welfare of the locality.

The opening paragraph of this document stated the rationale for this program as follows: "The global trend in the tourism industry, as well as in most of the market sectors, is to recognize the importance of developing any economic activity under the criteria of environmental and social responsibility. This positioning responds to a major global need, and additionally functions as a strategy of differentiation among companies of all sizes. The core of this differentiation lies in appealing to the emergence of a market of customers that are increasingly aware of the impacts generated by their consumption practices, especially in the tourism sector" [14].

The desire of the Belmar family was to support a triple bottom line in its operation of the hotel. This suggests that attention would be paid to ecologic performance, social performance, and economic performance. The primary tension that hotel management experienced in honoring this triple bottom line was the conflict between protecting the environment while at the same time keeping their economic commitment in mind by continuing to fill the hotel with guests (Table 1 and Table 2). If the hotel could not remain profitable, then it would also not be able to honor its environmental and social commitments.

CASE EXAMINATION

Background on the Hotel Belmar

Pedro Belmar, Jr. and his two sisters inherited the Hotel Belmar in Monteverde, Costa Rica, from their parents Vera and Pedro, Sr. The parents had met each other while studying abroad in Vienna and had subsequently married and returned to Costa Rica to open the Belmar in 1985 (Figure 1 and Figure 2). Before the parents turned the hotel over to their children, they bought another property across the street from the Belmar and built a second hotel, put a spring water pond in the garden behind the original Hotel Belmar, purchased a farm nearby, added a vegetable garden and a microbrewery on the property and an animal farm a few kilometers away. By 2016, the Hotel Belmar had a yoga studio, juice bar, spa and boutique, and a restaurant and bar.

TABLE 1. Hotel Belmar room rate increases 2010–2015

Year	2010	2011	2012	2013	2014	2015
Room Cost	\$89	\$92	\$92	\$140	\$160	\$198
Percentage price increase		3.37%	0.00	52.17%	14.29%	23.37%

TABLE 2. Comparison of Hotel rates in Monteverde area[†]

	Room	Rate	Amenities	Eco hotel
Hotel Belmar	Peninsula Superior	\$209	1 king size bed, orthopedic mattresses, minibar, safety box, telephone, WiFi, freshly brewed coffee delivery service	Yes
Hotel Belmar	Peninsula	\$198	2 queen size beds, balcony, orthopedic mattresses, minibar, safety box, telephone, WiFi, freshly brewed coffee delivery service	Yes
El Establo	Deluxe	\$215	2 queen size beds, balcony, orthopedic mattresses, bath and shower, telephone, television, safety box, tennis, basketball, and soccer courts, 2 indoor pools, bars, gym, spa, conference center	
El Establo	Suite	\$325	1 or 2 king size beds, bath and shower, sitting area, telephone, television, balcony, orthopedic mattresses, safety box, coffee maker, tennis, basketball, and soccer courts, 2 indoor pools, bars, gym, spa, conference center	
Los Pinos	Family	\$160	3 rooms, 2 single beds, 2 double beds, living room, kitchen, WiFi, television, parking	Yes
Los Pinos	Family Deluxe	\$180	3 rooms, 1 double bed, 2 single beds, 1 queen size bed, kitchen, WiFi, television, parking	Yes
Monteverde Lodge	Forest View Balcony	\$318	2 full beds, balcony, chairs and table, WiFi	
Monteverde Lodge	Groundfloor garden	\$159	Access to garden terrace, WiFi	
Hotel Poco A Poco	Bromelias	\$134	Telephone, coffee maker, iron, television, DVD player, safety deposit box, wet bar, WiFi, orthopedic beds, restaurant, spa, covered pool	Yes
Hotel Poco A Poco	Bromelias	\$154	Telephone, coffee maker, iron, television, DVD player, safety deposit box, wet bar, WiFi, orthopedic beds, restaurant, spa, pool	Yes
Hotel Montana Monteverde	Double Standard	\$90	1 double bed, 1 single bed, desk, telephone, safe box, view	
Hotel Montana Monteverde	Double Superior	\$147	1 king size bed or 2 double beds, telephone, television, minibar, balcony, table, safe box, view	

Source: [†]Various internet sites for information on hotels.

Elements of Sustainability from an Operational Perspective at the Belmar

Hotel Belmar has been certified as carbon neutral since 2015 by INTECO (a certification program set up and run by the government in Costa Rica).

- The Belmar is the only hotel in the area to be certified carbon neutral, and Pedro thinks that there are only two in the country to be so certified (including the Belmar), so this is an impressive accomplishment.

- The farm that the family operates (about 12 kilometers away from the hotel and which emphasizes organic and sustainable practices) was the first farm in the country to be certified carbon neutral under the same program.

- To achieve this, the Belmar uses LED lights; however, this practice is common at hotels in Costa Rica. The hotel has operational features that emit carbon, but they are able to offset these under the program by their reforestation efforts.



FIGURE 1. The Hotel Belmar.



FIGURE 2. Hotel Belmar lobby.

Belmar's Conservation Program in the Hotel

Examples of specific operational practices followed by the Belmar that had the potential to frustrate guests were the following steps set forth in their Sustainability Program booklet:

Water-saving devices. Low-consumption shower heads and faucets that resulted in up to 65% less consumption.

Fans and natural ventilation. In this way, we avoid using air conditioning to regulate temperature in our guest rooms.

Low-consumption devices. The use of energy-efficient lighting such as LED, CFL, motion detection lights, and photovoltaic lights.

Climate change mitigation design. Different characteristics of the hotel's building form a harmony with landscape and nature; maximizing the use of natural sources of heat, cooling, ventilation, and light.

Guest rooms and public areas. These spaces are properly equipped for the guest to participate in environmental management processes. They may do so through the actions of the proper classification of wastes, reduced water and energy consumption, and responsible behavior in the areas of environmental protection.

Practical Problems for a Sustainable Hotel Operation

Although the Belmar engages in a sustainability program, they have received the following complaints about their program from guests:

Bug problems. Guests sometimes complain about bugs, and this was troubling to the Belmar family because it would be inappropriate to use chemical-based pesticides since they are toxic. The Belmar uses a Chrysanthemum-based product that kills bugs, but it is not harmful in any

way to animals or humans. This is the method for insect control that is recommended by INTECO (the certification program in Costa Rica) and other environmental organizations. Perhaps the biggest improvement in pest control has been achieved in the past year by the installation of better outdoor screens in each room and more precise thresholds under the doors that has reduced the gap between the doors and the floor.

Despite these measures, insects sometimes do still find their way into the rooms, and these can generate complaints from bothered guests. In these cases, hotel staff respond quickly to remove the bugs physically.

Rodent problems. A related problem comes in the form of rodents. Food operations like the hotel restaurant always attract mice and rats. To combat this problem, the hotel uses a bait that is approved by the certification program. The bait is not attractive to other animals, but mice and rats are attracted by it; and when they eat it, they become thirsty, which motivates them to go elsewhere and there they die. This is important because the presence of rodents is a problem, but the odor created from decaying rodents would also be a problem.

Other complaints of guests concerned the lack of television in the rooms and the lack of air conditioning and heating in the rooms in order to conserve electricity. Guests often complained of being too hot in the summer and too cold in the winter.

The Belmar has not heard many complaints from guests about rodents over the years, but controlling bugs has been the greatest challenge for the hotel's management. However, the measures taken in the past year (especially the installation of new and better screens and reducing the gaps between doors and the floor, as described above) have reduced these complaints to almost zero.

Conservation Efforts in their Farm-to-Table Gastronomical Operation and Microbrewery

The Belmar family has attempted to provide a closed circuit between the farm and the hotel restaurant as much as is possible. On the farm, they have chickens, cows, goats, horses, and one pig; and they use these animals to produce the eggs and milk products that they use in the restaurant. They also grow the vegetable and herbs that are used to prepare meals in the farm. This approach promotes sustainability in the following ways:

- All of these products are raised using organic farming practices.

- Organic waste from the restaurant's operations is used as feed for the livestock at the farm.
- This allows for quality control in addition to the organic assurances.
- This practice eliminates packaging for the agricultural products, thus cutting down on solid waste.
- In turn, this cuts down on transportation of these products since the farm is so close, which reduces the carbon footprint of the hotel's restaurant operations.
- Because the farming practices are all organic, they are not using any chemical fertilizers or pesticides, which are mostly petroleum based. Therefore, their operations are nonpolluting and healthy for those guests who eat in the restaurant.
- This also builds goodwill in the community since it creates local jobs at the farm.
- The barley and hops for the microbrewery cannot be produced locally, so they have to be imported. However, they use a company named "Sail Cargo" which only uses sail-powered boats to deliver these inputs.
- All spent barley and hops are fed to the livestock at the farm, and the animals love these waste products because they are high in sugar content.

Addition of the New Practice of "Culinary Recycling"

The Belmar is one the cutting edge when it comes to the practice of "culinary recycling." As a result of this practice, the Belmar creates products that can be used in its culinary operations at the restaurant using byproducts that would normally be thrown out. The practice consists of the following:

- Carrot stems are processed and used in sauces and as salad dressing.
- Lemons and limes are squeezed for their juice, which is used in the bar and the restaurant, which leaves a great volume of rinds once the limited juice content is pressed out.
- Pineapples used in the restaurant also leave quite a bit of organic waste.
- This waste from lemons, limes, and pineapple is turned into lemon, lime, and pineapple cordial by soaking it in sugar water for 24 hours. The acidic and slightly bitter extraction that is drained from this is bottled and is then used in mixed drinks at the bar. This is a practice that has long been used in Europe.
- Hibiscus flowers are grown organically on the hotel grounds and are used as decoration. When they start to

wilt, they are removed and are boiled in water to create a “Hibiscus Infusion” that is added to certain cocktails.

Challenges for the Belmar

Pedro and his sisters are faced with the problem of dealing with guest complaints related to their sustainability practices, staying abreast of new developments in eco-hotel operations, managing the pricing of their rooms to cover the additional costs often incurred with utilizing sustainable practices, and outlining a plan for identifying the most likely prospective guests for their hotel and developing a plan to reach those guests.

CASE STUDY QUESTIONS

The following questions may be used to guide the discussion of this case:

1. What operational practices have Pedro and his sisters adopted to develop and maintain the Belmar Hotel as an eco-hotel in the following areas:
 - A. The hotel
 - B. The restaurant
 - C. The microbrewery
2. What have been some of the concerns of guests based upon these conservation practices?
3. What are some methods that the Belmars might use to deal with these guest concerns?
4. How can the Belmars identify the most significant characteristics of potential guests to their hotel?
5. How can the Belmars use these identified characteristics of likely guests to develop an effective marketing strategy.

AUTHOR CONTRIBUTIONS

The authors held a joint interview with Pedro Belmar to gain the initial information for this case study. Les Palich conducted the interview in person at the Belmar Hotel in Monteverde, Costa Rica, and Marlene Reed was able to Skype in to share in the interview. A year later Les Palich was able to present some additional questions in person to Pedro in Costa Rica to answer questions posed by the reviewers at *Case Studies in the Environment*.

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COMPETING INTERESTS

The authors have declared that no competing interests exist.

SUPPORTING INFORMATION

Teaching Notes

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