

Sustainable Rural Tourism Management: Upgrading eco-friendly and self-sustainable hotels in Costa Rica

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Abstract

Rural tourism represents a social innovative approach with a goal to conserve natural biodiversity where local communities showcase their cultural heritage and biodiversity. Though, it entails more than just visiting an all-inclusive hotel, it requires a holistic business approach that is conscious of the current tourist market demands. These approaches must make the best use of internet-connected gadgets to transmit data, which is translated into transformative actions, with the objective of improving systems adaptability. However, in Costa Rica, tourism accounts for over a quarter of its total export revenue, especially ecotourism as the most significant form of economic tourism activity. This research analyzes the administrative model of eco-friendly-self-sustainable hotels in rural areas of Costa Rica. Additionally, rural tourism also helps to protect the environment and improve livelihoods of communities. Costa Rica has enormous and innumerable opportunities to develop eco-friendly tourism. There are many reasons why we can think of developing this kind of business within the country's strategic development plans, such as geographical location, natural resources, social and political factors.

Key words

Sustainability management, Rural tourism, Green hotels, Environmental certifications, Costa Rica.

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1. Introduction

Costa Rica is a very small country located in the tropics of Central America, it has a unique natural beauty and ideal weather to engage in a nature-based adventurous activity. With a diverse range of options from forest, rivers, volcanoes, and beaches. Furthermore, it is known for having a vast biodiversity of flora and fauna. Most of the flora in the country has been restored through protection policies and reforestation (Reid et al., 2017). Such natural resources are a great deal to stimulate both domestic and international tourism.

Furthermore, it is also a country crammed with culture and traditions that can be thoroughly enjoyed along its territory, and the inhabitants are known for their kindness and hospitality. The most important factor that the country boasts of, is having access to both the Pacific and the Atlantic Ocean, thus the Caribbean cultural experience (Jones & Spadafora, 2017). There are so many activities and gastronomy that vary depending on the zone and this is the reason why it is a place that is most preferred by both domestic and international tourists.

As a small and a developing country, it is majorly comprised of rural areas however considerably the biggest populations have migrated to urban areas. This is also a strategy to promote rural tourism because most of these natural tourist alluring sites are in the rural areas of the country. Additionally, most of the tourist's projects in rural areas have been developed as a community-based tourism. This also helps to boost a societal collaborative project approach (Little & Blau, 2020).

According to (Lai & Hitchcock 2017; Mosedale & Voll 2017), community tourism is a social innovative approach with a goal to conserve natural biodiversity where local communities showcase their cultural heritage to tourist. However, community tourism involves more than just visiting an all-inclusive hotel. Subsequently, this is because tourists get to learn more about the social and economic aspects of a specific area as they are enjoying the activities that are offered. Most of the projects that are developed as community-based tourism in Costa Rica seek to make the visitors live a nice experience on what the place has to offer: nature, and therefore they developed ecofriendly business models.

Nevertheless, as an innovative approach in this kind of model, the main philosophy is to prevent contamination by reducing wastes, for example by avoiding plastic of single use. There are small hotels for instance that produce their own fruits and vegetables and use them to create fresh and nice dishes for their guests, while at the same time they do not use plastic to serve their cuisine as well (Accorsi et al., 2020).

In addition to that, the environment protection is a topic that has evolved with the implementation of sustainable measures. Such measures have been adapted from global initiatives to protect natural resources as the world is facing high escalations in the levels of global warming and environmental contamination. According to Damm et al. (2017), the tourism sector is not the only exception, it is a big contributor to environmental negative concerns since thousands of people move across different places in the pursuit to satisfy novel adventure experiences.

This research seeks to investigate and integrate the following determinant considerations: geographic, social, and political factors to understand the feasibility of developing an eco-sustainable hotel business in Costa Rica. The exploitation and accessibility of natural resources transformed for economic gains will depend on the mentioned three factors.

2. Objective

The overall goal is to analyze the administrative model of eco-friendly-self-sustainable hotels in rural areas of Costa Rica. Furthermore, the study also describes three of the most relevant eco-friendly-self-sustainable hotel business models, the factors that have driven business models of eco-friendly-self-sustainable hotels and finally propose innovative strategies to upgrade this market niche in Costa Rica.

3. Methodology

3.1 Investigation design

Since there are only a few literatures covering this topic, a qualitative research methodology was applied because of the nature of the subject matter (Mura & Khoo-Lattimore, 2018). A qualitative study was carried out to analyze the administrative and business model of eco-friendly-self-sustainable hotels in Costa Rica, as well as to describe generalities of this niche in the tourism sector.

Regarding the hotels, the study variables will include their geographical location, the sector to which they are directed and the strategies or types of technology they use to fulfill their objective of being eco-friendly or self-sustaining. As a supplement, the variables; age, country of origin and interests of some tourists who have visited these types of hotels was as well analyzed.

3.2 Population and sample

Through the typical case sampling technique, selected Costa Rican and rural hotels that are benchmarked for their eco-friendly or self-sustainability philosophy was selected. Additionally, a random sampling was carried out in tourists belonging to the target market of this market niche.

3.3 Data collection

To obtain the required information for this research, three main methods were used thus, a case study where the focus is to obtain related information about the business models being applied, directed surveys to obtain inside data for analysis and conclusions and finally a bibliographic review for conceptual, scientific, and certified sources to base our analysis on reliable data.

4. Results and discussion

This section provides insights concerning results and discussions which also covers the certification for tourism sustainability analysis and its present situation in the Costa Rican Hotel industry.

4.1 Certification for tourism sustainability (CST) analysis

According to the Costa Rican Tourism Institute, the fundamental purpose of the CST is to turn the concept of sustainability into something real, practical, and necessary in the context of the country's tourism competitiveness. In addition, according to Hunt et al. (2015), the transformation

of sustainability concepts improves the way in which natural and social resources are used, encourages the active participation of local communities, and provides new support for the competitiveness of the tourism business sector.

When a company gets the CST, it is because it has exhibited an excellent management that actively works on mitigating its negative impact on the environment. For example, a CST company must be dedicated on reducing the greenhouse gas emissions effect, giving a proper management to waste and recyclable materials, and must have strategies for saving water and energy. Also, they must make important efforts on the strengthening of the social, cultural, and economic conditions, by training and hiring local people and promoting local traditions and biodiversity (Blackman et al., 2014).

According to Howitt (2018), for Costa Rica, the CST represents a new source of competitiveness, because it allows to differentiate the local tourism industry from other competitors. As this process certifies that the methodology of developing tourism products is encouraged with sustainability perspective. This strategy strengthens the image of the country as a truly naturalistic destination, considerably increasing the competitiveness of the national tourism product and opens new possibilities for marketing or international promotion.

This approach also helps local tourism companies because, in addition to the support that the Costa Rican Tourism Institute offers in promotion, they achieve more efficiency in their operation by promoting savings and an efficient use of resources. This has a positive impact not only on the quality of the product, but also on the cost-benefit ratio.

Finally, the CST directly mitigates the inconsistent practice of some companies that operate as "greenwashers" (companies that abuse the concept of "eco" or "sustainable"), by providing unreliable information of the companies that really strive to offer a sustainable tourism product and which ones do not.

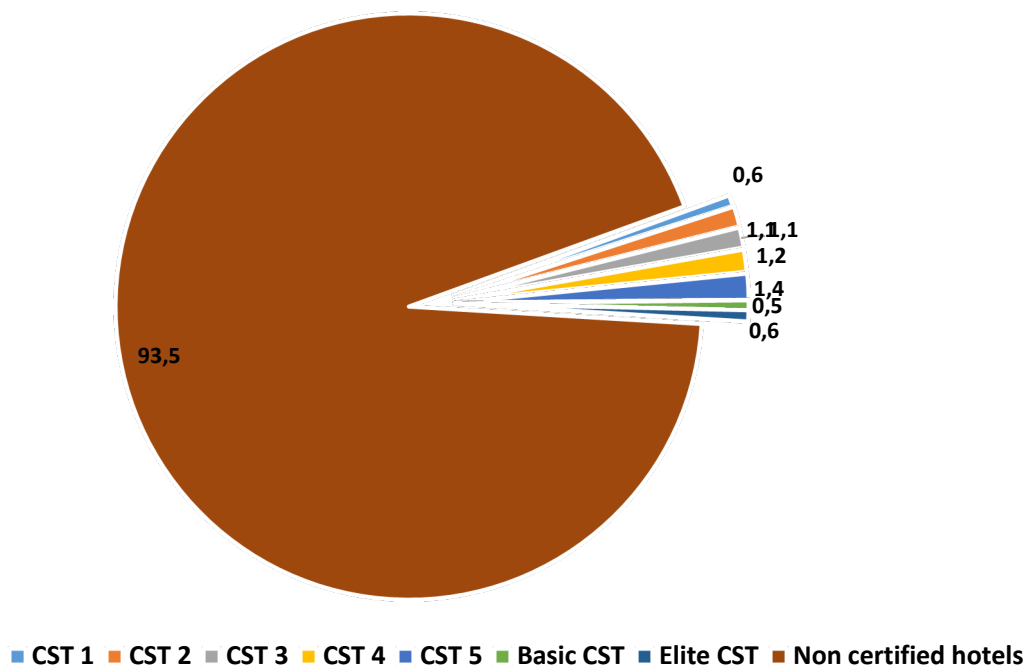
4.2 CST status in Costa Rican Hotel Industry

It is well known that Costa Rica has been characterized as a green paradise, because of its abundant biodiversity and culture of environmental protection policies (Courvisanos & Jain, 2006). Although, when it is analyzed the number of hotels that have reached a CST certification as shown in Figure 1. It is noticed that only a small percentage of them that have been certified, it is only a smaller portion have achieved a high level of certification (CST 4, CST 5 or Elite). This result is quite shocking and contradictory to what Costa Rica is famously known for; however, efforts have been made at all levels to meets international sustainability agreements like the Paris Agreement etc.

As well as most nature-based certifications the processes involved are so demanding that at certain points, the processes involves additional increase in operations costs of a company (Chen et al., 2010). Though, to attain the CST certification, the company must meet and comply with the forementioned standards such as recycling strategy, sustainable plan etc. It is possible that this data correlates with the wide scope of variables that the certification takes in account, as it asks for more than just nature preservation or implementation of new eco or sustainable technologies.

Figure 1

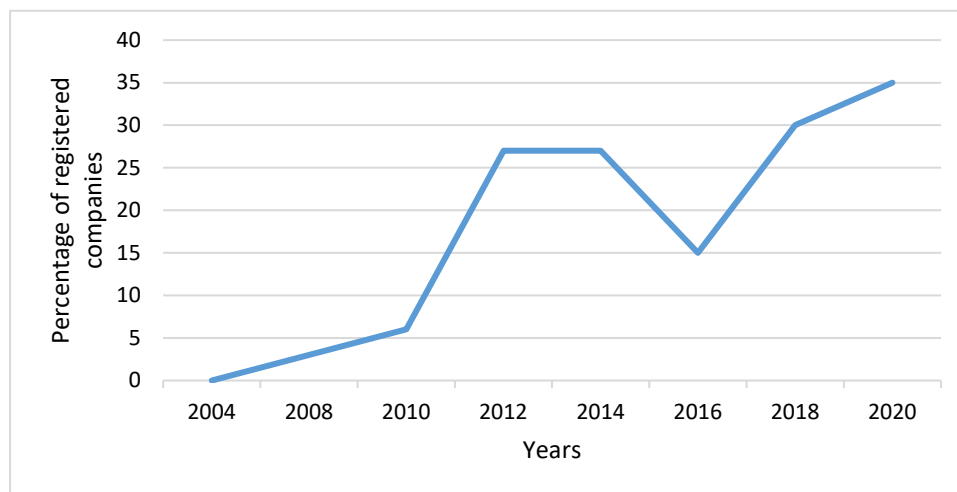
CST certified hotels in Costa Rica



Source: Own elaboration.

Although, if we observe a graphic that describes the number of hotels that get the CST by year, we can observe an upward trend (Figure 2). This might be because this kind of certifications and sustainable models start to be a standard demanded by customers. Also, it is possible that some hotels were implementing already sustainable administration models and are now interested in being certified because of its benefits. This trend is very specific due to current demands of sustainable hotels especially from European tourists. In response to a study by Carvache-Franco et al. (2019), regarding the origin of tourists in Caño Negro National Wildlife Refuge and Arenal National Park, over 42.3% revealed their origin mostly from European countries.

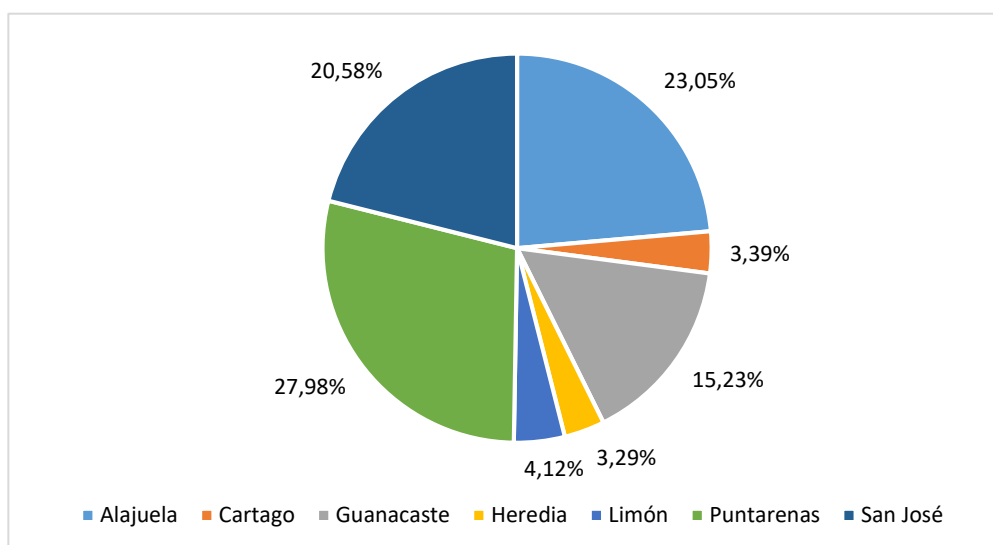
Figure 2

Number of new CST certifications per year in Costa Rica

Source: Own elaboration.

If we segregate the data of certified hotels according to the region or type of hotel as shown in Figure 3 and Figure 4, we can observe that most of them are in Puntarenas, San José, and Alajuela; and that they are mainly Mountain hotels. This also means that tourists are very conscious about sustainable environmental practices hotels operate. The focus is therefore, enjoying the maximum of nature-based adventures but at the same time promoting a conservation culture for future generations.

Figure 3

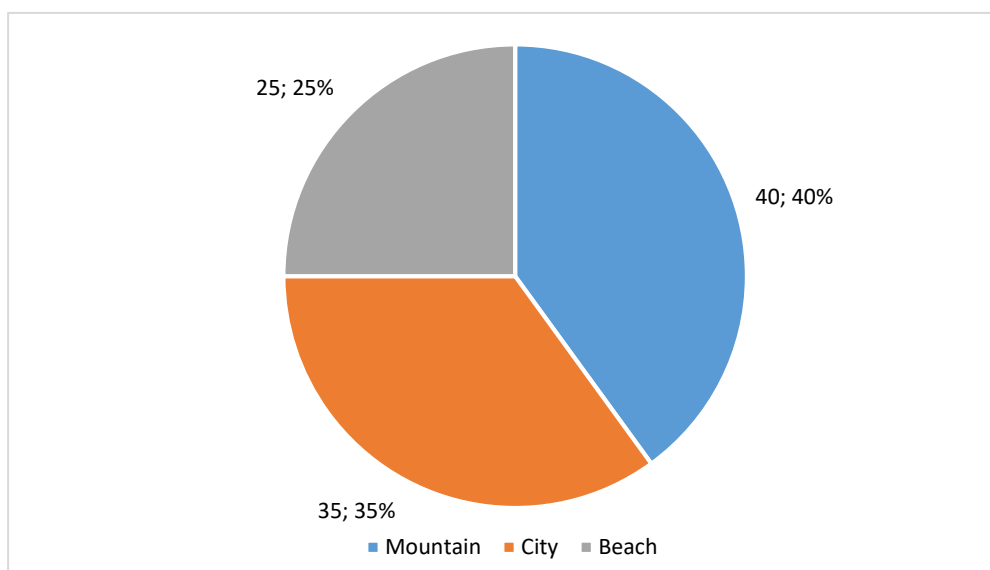
CST certified hotels by province

Source: Own elaboration.

One of the most highly tourist attractive sites are the beaches in Guanacaste. But a study by Mora-Alvarado et al. (2019), identified 62 beaches in this province with at least a moderate risk category in terms of safety. This is very interesting, as it is easy to think that Costa Rican beaches located in Guanacaste are one of the most important tourist sites. According to this data, it is possible that the CST certification is becoming a way to attract more tourists and gain competitiveness in other places. Additionally, the certification demands from European tourists have increased both the tourism and hotel industry in mountainous areas. The most common activities in these mountainous areas include: Canopy, hiking, birdwatching etc.

Figure 4

CST certified hotels by type

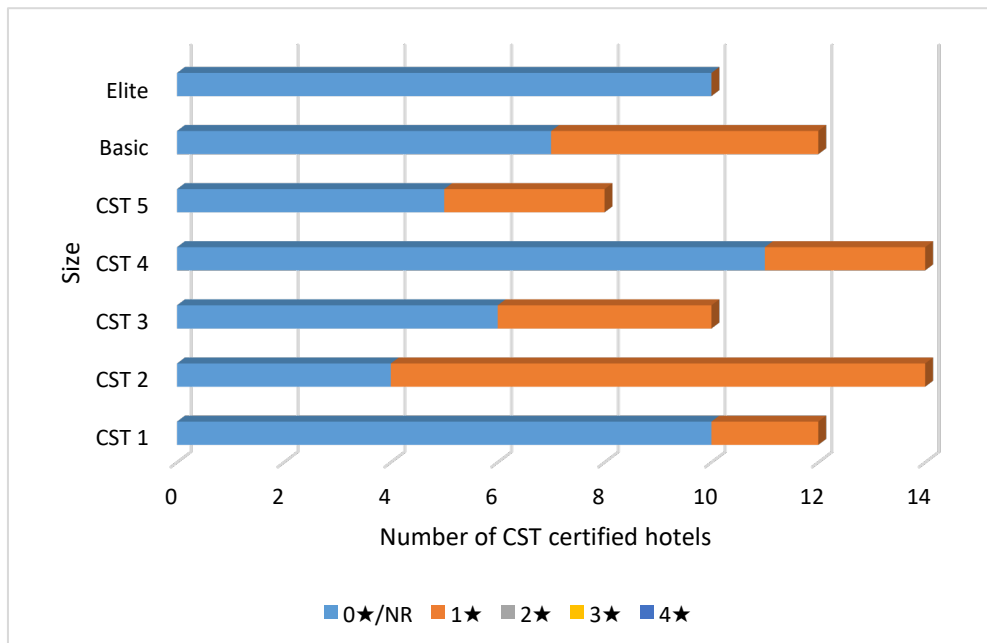


Source: Own elaboration.

When we analyzed the data according to the size of the hotels, we noticed that the vast majority of them are very small hotels, with less than 50 rooms (Figure 5). Certainly, this pattern is because the certification gives advantage to small entrepreneurs and it has some benefits such as tax exoneration, free publicity, and technical-logistical support. It is also important to mention that rural tourism is highly demanded by both European and North American tourists. This offers an added advantage to small scale companies to form associations to attend large groups as well showcase their cultural heritage and biodiversity.

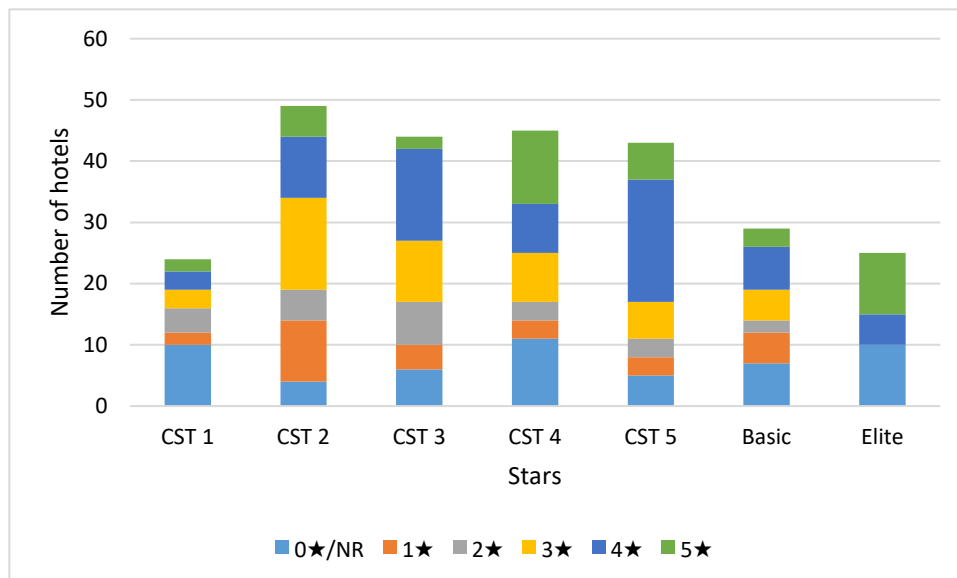
Finally, we attempted to observe if there was a correlation between the Quality stars rating of the hotels and the level of CST certification that they have, but the graphic analysis reveals that they are not correlated (figure 6). It is normal to expect that the quality stars ratings and CST would go hand in hand as a bonus or double win for companies. But this is not always the case because there are CST certifications with all quality stars categories thus from zero-star rating (lowest) to five star ratings (highest) (Brazytè et al., 2017).

Figure 5

CST certified hotels by size

Source: Own elaboration.

Figure 6.

CST level by amount of stars

Source: Own elaboration.

This could be because of the different scope and objectives of both systems. Even though, we think hotels are using them as complements that can give a competitive advantage, because it is

observable that hotels with different number of stars are well certified. The CST certification is more of a sustainable based approach of tourism and hotel management. However, according to Geetha et al. (2017), the stars ratings are based on customer reviews and satisfaction, of which in most cases it has nothing to do with sustainability measures concept.

5. Innovation opportunities

According to Mylan (2018), almost a quarter of Costa Rica's export revenue is derived from tourism, particularly ecotourism as the most significant form economic growth. Additionally, this form of tourism also helps to protect the environment and improve the livelihood of communities. Costa Rica has huge and innumerable opportunities to develop eco-friendly tourism. There are numerous reasons why we think of developing this kind of business within the country's strategic development plans, such as geographical location, natural resources, and social and political factors.

We can count 28 National Parks, 11 forest reserves and 32 protected zones inside the rainforest, including volcanoes, and rivers. The Costa Rica's beaches are among those that are ranked Top 10 around the planet. These numbers are amazing considering that the country represents 5% of the world's biodiversity in only 51,100 Km² of its national territory (Santidrián-Tomillo et al., 2017; Luijendijk et al., 2018).

From the social & political factors we can find that Costa Rica has a robust sustainability and renewable energy initiatives to support environmental projects as well as incentivize new business with the possibility to work under the famous brand Essential Costa Rica. This is the biggest brand in the country that integrates all the local businesses that want to be certified under the social, renewable and sustainability programs. Additionally, this certification attracts a lot of customers that are looking for green experiences from Costa Rica.

6. Proposal for sustainable upgrading

The content of this section includes an innovation opportunity for a self-sustainable project. The following are considered tentative innovative approach for sustainable upgrading based on the results of this research:

- **Smart hotels:** According to Amer & Alqhtani (2019), smart hotels are those that makes the optimal use of internet-connected gadgets to transmit data, which is translated into transformative actions, with the objective of improving systems adaptability. Additionally, this innovative proposal also includes the implementation of technology to hotel's excellent facilities and services activities. Some examples are: -Voice-activated controls: these controls are used for music, temperature, to order food and to make reservations in the several hotels amenities (Sari, 2018).
- **IoT / Data science:** Applying data science through models like TripAdvisor etc. gives hotels the opportunities and scope for improvement (Moro et al., 2017). As the company will be in position to apply and analyze customer preferences and satisfaction. This also may enable the company to improve on their star ratings depending on the quality of their services. Furthermore, this

technology is used to make/manage online reservations and to understand and analyze the customers preferences in order to adjust the hotel offer to what the customers are looking for.

- **Apps:** Various applications have been developed to monitor water consumption, carbon footprint, to check on weather forecasts and activities close to the hotel. Also, apps are available to know about community information, purchase souvenirs and other products. At the same time, the International certifications have developed apps that help the hotels to follow up on sustainable practices globally like Foodbank Helper (Nielsen & Rimpiläinen, 2018).
- **Environmentally friendly normative:** Another important consideration is the implementation of a sustainable designs, as projects must be aligned and use certified construction materials. Additionally, some good practices include the reduction of plastic use and wastes by adjusting the menu. Alternatively, only serve the amount that the guests would actually consume and placing dispensers for water and other supplies to limit its use (Tribago Business, 2019).

Regarding water conservation and energy saving, the following are some innovation opportunities: (a) reduce the laundry by enhancing guests to reuse towels and reduce room cleaning, (b) install lower-flow showers and urinals, Led lights, energy saving lamps and a Smart energy management system. And finally (c) install HVAC systems activated by key cards.

On the other hand, there are improvement points at the management level, for example implementing Management information systems (MIS) to monitor the use of resources, personnel, and finances. There is also a social impact to be considered since hotels have always a significant amount of manpower required. The personnel should be hired locally and capacitated on sustainable concepts which promote recycling and reusing culture. In this same aspect, there is a direct benefit to the communities when hotels purchase local supplies as vegetables, cleaning products, among others (ULI Americas, 2021).

As hotels have huge requirements of various supplies and materials, there are opportunities to improve the way to contract or purchase them as: joining sustainable suppliers and companies that work under the same scheme, it would help them by sharing experiences. Also, the use of non-toxic cleaning solutions, sanitizers, pesticides in their activities would reduce contamination (Merli et al., 2019)

Another innovative idea is the creation of a menu using fresh products from on-site certified organic farms that consumes less space, water, and energy. And the last section refers to a very important aspect that are the natural retreats & wellness programs that according to this research are in between the most important things for guests when on a reservation. The idea is to create spaces to do exercises like classes of Yoga involved in nature, as the guests enjoy healthy food (Rajeswari & Sathishkumar, 2019).

And the most important thing that we must know about this beautiful country is the Pura vida slang, this reflects the lifestyle that everyone around the world is looking for to be happy and relaxed (Smith, 2018).

7. Conclusions

Costa Rica has all the conditions required to develop more self-sustainable business models around the country. The potential for growth is huge for the tourism industry. Based on the country's

abundant flora and fauna in addition to diverse mountains and water bodies. The tourism industry presents high potential for improving livelihoods in rural communities. Furthermore, in the long run this will also help to reduce inequality in the country in terms of development and employment opportunities. Currently, economic development is highly concentrated in urban centers.

Nevertheless, there are huge numbers of projects that could be interested in developing a sustainable business model, applying the ideology of smart hotels, data of science, Apps etc. This novel initiative can be stimulated by the CST and could formulate a guide or a framework to carry out it accordingly. This strategy would also function in favor of small-scale companies in terms of thorough capacity building and monitoring.

However, there is a market niche which is very concerned about the environment and sustainable development. This scenario can be observed in both domestic and international tourists, as more are interested and inclined to rural community adventures compared to city tourism. This can also be attributed to less contaminating aspects in terms of water and air pollution in rural areas. The Above-mentioned sustainable projects are rising, and are trending based on the customer's demand and the global needs to mitigate the negative impact within hotel industry.

There is an opportunity to do more research on this topic as a strategy for marketing and benchmarking. To effectively promote this model, more research must be conducted providing data and information which tourists can use to make decisions on their consumptions and preferences. In this way, people will make informed decisions based on their consciousness to protect the environment and promote sustainable development in societies.

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