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Environmental Sustainability Analysis as a Competitive Strategy in the Hotel Industry of Sinaloa, Mexico

Beatriz López-Illán* / Juan Pedro Ibarra-Michel*

e-mail: juanpedroibarra.udo@gmail.com, betty.lopezillan@hotmail.com

Department of Social Sciences and Humanities, Universidad de Occidente, Sinaloa, Mexico

Abstract

This case study analyses characteristics of the implementation of environmental strategies in hotels. Results were found to be highly variable between hotels. They also highlight the need for greater momentum for this new type of business model. For the development of this research, a multi-method study approach was adopted, with a mixed methodology to the hotel industry of the state of Sinaloa, Mexico. This was done through executive interviews in addition to the application of a compliance guide to 11 companies selected from the sector. Relevant aspects are considered through a review of the hotel sector and sustainability, consumer trends, sustainability in the tourism market and development phases for corporate sustainability.

Keywords

sustainability, competitiveness, hotel management

JEL classification: L83, Q56

*Both authors collaborated equally to this work.

Introduction

The development of tourism has many economic, social and environmental impacts on a community. The hotel industry must minimize any negative consequences, particularly due to growing concern worldwide regarding the future of the planet. Environmental sustainability is a requirement for not only communities and official bodies, but also for markets at all levels. This new way of doing business has spread throughout the world and has become a general trend of tourism as confirmed by the United Nations World Tourism Organization (UNWTO, 2004), which, through the fulfilment of a series of indicators, promotes it as necessary for balanced development of communities.

In the state of Sinaloa, Mexico, the economy of which has traditionally focused more on primary sector activities, tourism has become a growing economic activity; this is particularly the case in the city of Mazatlán, a popular tourist destination. This research focuses on assessing the state of sustainability as a competitive strategy in Sinaloa. The analysis was also carried out in other areas of the state which, despite not having the importance of Mazatlán with respect to tourism, are still important for the regional economy.

The scientific approach to the subject is based on the following question:
How is environmental sustainability applied as a competitive advantage in the hotel business of Sinaloa?

As a secondary issue, we ask:
What is the current state of environmental sustainability in the hotel business of Sinaloa?

A multi-case methodology with a QUAN-QUAL approach was proposed. On that basis, an assessment of 11 hotels throughout the state in five different localities was performed using the proposed model of Ganescu (2012).

Theoretical basis

Tourism companies, particularly hoteliers, are complex organizations with specific characteristics that differ from others due to the deep interrelationship between the service provider and the user, which will determine their quality and permanence in the market (Ottenbacher, Shaw, & Lockwood, 2006).

This industry is steeped in constant changes in customer needs, a highly competitive market, globalization and constant technological innovation, which companies in this field must continually adapt to (Mason, 2007).

One of the demands today presented at a global level, both by the public and official sectors, is sustainability (Dodds & Joppe, 2005; Wehrli et al., 2011; CREST, 2012). In an industry which is highly sensitive to the image presented to consumers, and which depends on the conservation of natural and cultural attractions, adopting sustainability practices can be considered one way to further improve its image.

Tourism has in fact for some time adopted sustainable models of growth involving conservation of natural resources and respect for cultural and natural heritage (Cottrell, van der Duim, Ankersmid, & Kelder, 2004; Druce, 2007; Gilbert, 2003; Yeoman, 2008). Nowadays, the adoption of sustainability has become a distinctive feature that seems desirable and convenient for companies engaged in tourism, both for their impact on the competitiveness of companies and to have good relations with government and society in general (Lozano, 2015).

The continual development of tourism is considered a matter of social progress in many countries. It can alleviate poverty and inequality through the creation of businesses and new jobs and increases opportunities for progress, income distribution and sustainable use of natural and cultural resources (McIntyre, Hetherington, Inskeep, & UNWTO, 1993).

Corporate sustainability in hotel industry

The hotel industry, as a fundamental part of tourism activity, can contribute significantly to the deterioration of the ecology due to the amount of waste it produces, as well as the inputs it requires. Thus, its appropriate management is vital for tourist destination environmental sustainability (Sunlu, 2003; Ewert & Shultis, 1997). Tourists, and society in general, are now more actively aware and participate in environmental conservation and are consequently more demanding with respect to the creation and fulfilment of norms and regulations in this area (Bansal & DesJardine, 2014). Therefore, the tourism industry in general must adopt strategies that allow it to meet that demand and make it more competitive in a more diverse market that seeks environmentally friendly and ecologically balanced locations (Brau, 2008; Iraldo, Testa, Lanzini, & Battaglia, 2017). Given the increased number of tourists, it is necessary to know how hoteliers are facing the demand of official and unofficial actors in order to formulate and implement strategies for environmental sustainability.

Sustainability issues have now permeated almost all aspects of the hospitality industry (Raderbauer, 2011). This has been driven by multiple factors, including the desire of owners and operators to reduce operational costs, changes in the attitudes of investors and official sectors towards the environment, favouring the emergence of corporate social responsibility (CSR) programs, but mainly due to changes in consumer attitudes towards sustainability (Harrison, Newholm, & Shaw, 2005; Hedlund, 2013).

Attitudes in the general market have indeed tended to seek products and services that meet certain parameters related to environmental conservation and CSR (Hurth, Peck, Jackman, & Wensing, 2015). More individuals are now demanding a change in traditional paradigms of production for conservation of the natural heritage of humankind (Burns, 2012).

Many tourism companies have thus tried to implement sustainability into their daily operations, seeking certifications that allow their efforts in this area to be advertised (Bowman, 2011). This has resulted in a proliferation of organizations that provide

sustainability certifications and that guarantee certain standards of quality and respect for the environment.

The tourism industry, despite this relatively recent development, has been criticized for its unsustainable practices such as exploitation of the environment and local people. They have been accused of a low level of commitment to particular destinations, control through large transnational corporations, unsustainable planning of physical elements, and insufficient action to develop and implement sustainable initiatives, all due to avoiding short-term associated costs, despite potentially increasing long-term profits (Swarbrooke, 1999; Mowforth & Munt, 2009; Moscardo & Murphy, 2014).

The focus on obtaining rapid financial benefits in general limits the growth of sustainability as a central growth strategy of organizations. The aforementioned drive to obtain sustainability certifications are a consequence of what Angelkova, Koteski, Jakovlev, and Mitrevska (2012, p. 222) state as, "over the last few decades, expansive and uncontrolled tourism development is accompanied by many undesirable environmental, social and cultural implications that impose the need for tourism to be under the concept of sustainable development". This legacy often results in the destruction or serious deterioration of the natural heritage of tourist destinations that may be the cause of their eventual decline (Butler, 1980; Weaver, 2012).

The hotel industry and tourism, in general, have been a little slower to make decisions regarding environmental care because its negative effects tend to be rather invisible, at least in the short term. Since the implementation of Agenda 21 by the United Nations, the United Nations World Tourism Organization has endorsed the Agenda 21 guidelines and issued a global code of ethics emphasizing unwritten obligations for tourism service providers in all its branches (UNWTO, 2004). Although not mandatory, these ethical requirements have served as a guide for local governments, entrepreneurs and communities interested in conservation of natural and socio-cultural heritage.

According to Doody (2010, p. 3), "the concept of environmental sustainability has become a very serious and deep issue within the hospitality arena in the last decade. This is mainly due to the rapid pace at which customer needs and expectations are changing". This new way of thinking about tourist service users has transformed all tourism organizations to varying degrees.

However, despite the change in tourist expectations and needs, many tourism organizations are not interested in environmental sustainability for altruistic or ethical reasons, but for purely selfish reasons since their investment in environmental practices is only to increase profitability (Pizman, 2009). World Tourism Organization World Tourism Organization has endorsed the guidelines set by Agenda 21 and has issued a global code of ethics emphasizing unwritten obligations for tourism service providers in all its branches (UNWTO, 2004). Although not mandatory, these ethical requirements have served as a guide for local governments, entrepreneurs, and communities that are interested in the conservation of their natural and socio-cultural heritage.

Phases of developing corporate sustainability

According to a scheme proposed by Ganescu (2012), organizations usually go through several stages when developing their corporate sustainability, ranging from indifference, rejection, to adopting a corporate strategy that considers values linked to this new way of doing business (see table 1).

Table 1 Phases in the development of corporate sustainability

Phases	Treatment of human resources	Treatment of natural resources
Phase 1 Rejection	Employees and subcontractors are exploited; the organization has no responsibility regarding health and work safety or employee development.	The organization doesn't assume responsibility for the impact of its activities on the environment. Natural resources and environment can be exploited freely and with no costs.
Phase 2 Ignorance	Technological and financial factors dominate business strategies. The most important aspects of human resources management are excluded. Social responsibility is ignored.	Technological and financial factors dominate business strategies and environmental objectives are excluded.
Phase 3 Compliance	Technological and financial factors still dominate business strategies. Compliance is achieved only as a risk reduction exercise.	Environmental abuses are eliminated, but environmental issues with a smaller impact on the community are ignored.
Phase 4 Efficiency	Steps are taken to integrate HR functions into a coherent system of human resources management to reduce risk and increase efficiency. Community projects are carried out only if funds are available and if they bring real benefit.	Environmental issues that generate costs are regularly reviewed to reduce costs and increase efficiency.
Phase 5 Proactive strategies	Intellectual and social capital is used to obtain a strategic advantage. The effects on the community are considered and programs to reduce these effects, integrated into business strategy, are carried out.	Proactive environmental strategies are valued as sources of strategic business opportunities and competitive advantage. Steps are taken to enforce those production processes that will produce ecologic products.

A R T I C L E S

Phases	Treatment of human resources	Treatment of natural resources
Phase 6 Corporate sustainability	The organization adopts clear and strong ethical practices based on the respect for stakeholders' needs, influencing market operators and society, in general, to comply with human rights, to adopt fair social practices, to develop human capital.	The organization is an active promoter of sustainability values and seeks to influence market players and society, in general, in this respect. It adopts best environmental practices, as the company is aware that it must act responsibly.

Source: Ganescu (2012), adapted from Holton, Glass, and Price (2010)

These different phases demonstrate that companies determine their actions based on their initial reaction to different social sector demands and the market for sustainability. Their first reaction typically comprises a defensive or reactive attitude until arriving at acceptance and later acquiring a proactive stance. On the other hand, companies are often pressured by opposing forces as to whether or not to follow corporate sustainability (Ganescu, 2012), and the specific weight of these forces will determine which direction the company will follow in this regard.

Although initially companies typically consider the costs and economic constraints to being 'green', adopting more environmentally aware approaches can result in many unexpected benefits, such as a reduction in operating costs, and access to profitable market niches.

Methodology

This work aimed to assess the current sustainability condition in terms of providing a competitive advantage in the hotel industry of the state of Sinaloa, Mexico. This state is located northwest of Mexico City and has continually growing tourist activity (Gobierno del Estado de Sinaloa, 2017) due mainly to the opening of new roads and airline routes. Data were collected from some of the most important hotels in cities throughout the state.

The five cities considered as the most representative in terms of tourism in the state were: Mazatlán, as a traditional tourist destination in the region; Rosario and El Fuerte named as "Pueblos Mágicos" (Magic Towns, a program of the Federal Government to support and increase the development of towns that have a rich culture and very distinctive features through the tourist activity) by the Tourism Bureau of the Federal Government; Culiacan, capital of the state and an important centre of agricultural and industrial business; and Los Mochis, the state's third-largest city also of great importance to agricultural businesses. From these localities, 11 hotels were selected to represent some of the more traditional hospitality business in the state beginning with the city of El Fuerte: Hotel Torres del Fuerte, Hotel el Fuerte, Hotel Posada del Hidalgo. City of Los

Mochis: Hotel Santa Anita, Hotel Plaza Inn. City of Culiacan: Hotel Lucerna, Hotel Ejecutivo. City of Mazatlán: Hotel Playa Mazatlán, Hotel Corporativo el Cid. City of El Rosario: Hotel Bellavista, Hotel El Yauco.

Table 2 Hotels chosen for the case study and their characteristics.

Hotels	Characteristics
El Fuerte	
Hotel Torres del Fuerte	Special hotel category with a total of 25 rooms, with a great tradition in the city and with a total of 12 employees; four in-depth interviews were conducted with managers and employees and a compliance guide for different areas of the hotel.
Hotel el Fuerte	Special hotel category with a total of 45 rooms, ten employees with a capacity of lodging of 80 guests; four interviews were conducted in depth with managers and a guide to compliance by different areas of the hotel.
Hotel Posada del Hidalgo	3-star category, with a total of 68 rooms, with a great tradition in the area and a total of 32 employees; four in-depth interviews were conducted with managers and executives and a compliance guide for different areas of the hotel.
Los Mochis	
Hotel Santa Anita	3-star category with a total of 109 rooms, with a great tradition in the area and 55 employees; four in-depth interviews were conducted with executives and executives and a compliance guide for different areas of the hotel.
Hotel Plaza Inn	3-star category with a total of 123 rooms and 74 employees; four in-depth interviews were conducted with executives and a compliance guide for different areas of the hotel.
Culiacán	
Hotel Lucerna	4-star category with a total of 145 rooms and 151 employees; five in-depth interviews were conducted with executives and a compliance guide for the hotel areas.
Hotel Ejecutivo	5-star category with a total of 230 rooms and 185 employees: four in-depth interviews with executives and a sustainability compliance guide was applied in all areas of the hotel.
Mazatlán	
Hotel Playa Mazatlán	This 406 room Hotel (SECTUR 2014) has a great tradition in Mazatlán and was founded in 1955. It has an official certification as a clean hotel. Six interviews were conducted with hotel managers and executives and a compliance guide was applied.

Hotels	Characteristics
Hotel Corporativo el Cid	It is a conglomeration of 4 hotels located in the destination and with a total of 1043 rooms concentrates more than 10% of the entire lodging offer of Mazatlán, which is 9,221 rooms according to the Secretary of Tourism (SECTUR) 2014. Five interviews were made with hotel managers and executives, as well as a compliance guide.
Rosario	
Hotel Bellavista	No category. It has a total of 37 rooms and a total of ten employees; two in-depth interviews with executives and a compliance guide were applied.
Hotel el Yauco	No category. It has a total of 42 rooms and 30 employees, of great tradition in the area; two in-depth interviews with the manager and the owner of the hotel and a compliance guide were applied.

Source: own processing

A QUAN-QUAL approach was used which allowed the use of instruments such as the interview and a compliance guide that allowed triangulation and complementation of information.

The case studies are characterized by being trans-sectional and/or transversal. These studies collect data in a single moment, at a single time, describing variables and analysing their incidence and interrelation (Hernández-Sampieri, Fernández-Collado, & Baptista, 2011). It is a type of descriptive research, using non-probabilistic sampling of convenience; only executive leaders and decision-makers were considered for the study due to their importance in planning and creating strategies for competitiveness.

In the qualitative part of the study, semi-structured interviews were applied, with questions about perception of sustainability, its financial and competitiveness impacts, their strategies and training programs on the matter, and compliance with government regulations.

Regarding quantitative measurement, after reviewing literature on sustainable business (Bae & Smardon, 2011; Fiksel, McDaniel, & Mendenhall, 1999), a compliance guide with 27 items was also applied to some of the main aspects to be addressed regarding environmental sustainability: water care, energy, recycling of waste, reduction of pollutants, sustainability infrastructure and signalling. This compliance guide was applied in the most important areas for daily hotel operation such as maintenance, restaurant (if any), management, housekeeper, and laundry (if any).

With respect to the study's limitations, it intends to analyse the particular situation of the selected hotels, which represent a valid example of what is being done in the state on this subject. It does not include quantities or percentages of input savings or quantities of pollutants generated, and focuses mainly on adoption of environmental sustainability, its impact on finances, competitiveness and the degree of success according to the perception of its leaders.

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Results

El Fuerte Hotels

Sustainability results for El Fuerte hotels, particularly for the Torres del Fuerte and Fuerte hotels, were not encouraging. The hotels were not particularly interested in the topic and have not followed any official methodology to achieve perceptible change; no actions or strategies have been established and they do not perceive sustainability as an important factor for competitiveness. There is a lack of an internal training plan for employees focused on environmental sustainability and only partial actions and measures are applied in this area; despite this, a slight tendency for promoting sustainability was noted, but the hotels have not been prepared and clearly informed about what it means to be sustainable.

The Posadas Hidalgo hotel have a different approach. They state that they 'care a lot about the customer perception' on this matter and consider some 'green business' strategies as providing a competitive advantage. A sustainability culture is spreading in the hotel, but there is no formal training plan, and so there is a lack of information in some key areas.

The area's hotels' level of compliance with the evaluated elements is relatively low (37% Torres El Fuerte, 63% El Fuerte, and 67% Posadas Hidalgo), showing that the current state of environmental sustainability awareness in these hotels is poor. They are clearly focused on saving resources such as water or electricity, but they care little about recycling, and signalling is practically non-existent.

Los Mochis Hotels

Interviewees in the two hotels of the city of Los Mochis (Santa Anita and Hotel Plaza Inn) stated that they only comply with the immediate demands of the authority; if they receive proposals from official organizations, they work to achieve permanent change. However, internally it is necessary to establish strategies with staff, such as a formal training plan, to create an environmentally aware culture. Staff clearly perceive sustainability as providing a competitive advantage and significant water and electricity savings, but still have much to do with respect to recycling.

Santa Anita and Plaza Inn hotel staff were found to be working continuously in the search for sustainable development strategies. However, more dissemination and education are required, since the hotel only seeks to comply with official requirements and save on their input expenses, but without becoming engaged in real sustainability commitments since they are not seen as a priority; as a result, their level of compliance with evaluated elements was low (67% Santa Anita and 63% Plaza Inn).

Culiacan Hotels

Both Culiacan hotels (Lucerna and Ejecutivo) have an incipient environmental culture. However, they require more work with external institutions to advise them about methodologies to help them improve their actions and strategies, as well as increased personnel training. Interviewees showed genuine interest in sustainability and are aware of customer and market perceptions in this regard; however, there is no accurate methodology to evaluate the results of their efforts. They perceive sustainability as providing an important competitive advantage and even as a way to stay in the market in the long term. They have already established a formal training program to spread the sustainability culture among employees. They have reduced input costs and recycle some materials, but the perception is that they can do more if they are willing to.

Leaders of these hotels showed a great vision towards a future with sustainable-managed tourism. Compliance with evaluated elements was found to be high (81% Lucerna and 70% Ejecutivo). Lucerna hotel is a clear example of efficiency in the use of inputs and they are very competitive in that respect; they receive high-class visitors, so they are aware of the needs of their customers in every matter, including environmental care; this is an important factor for decision-making in every aspect of their daily operations. Ejecutivo hotel is also on the right path regarding the intelligent use of resources but there is a need for more signalling and increased infrastructure for separating garbage for recycling, for example.

Mazatlán Hotels

Results for the Mazatlán hotels were more favourable. The owners and leaders showed a genuine interest in sustainability and have been working with consultancies with external agencies, leading them to obtain relevant certifications and recognition. Their actions and strategies, as well as their training on the subject, is continuous; they state that sustainability practices add extra value and quality to their services. Hotel Playa has the certification of a 'Clean Industry' from PROFEPA and the recognition of being a 'Sustainable Hotel' from the Council for the Development of Sinaloa. Hotel El CID has the distinctive 'S' of PROFEPA, meaning that it is in accordance with the requirements of international organizations such as EarthCheck and Rainforest Alliance. Mazatlán has very competitive hotels so, as the informant state, it is important to be ahead in every aspect including sustainability. A sustainability culture is homogeneously spread in the organization and as a result, their efforts are more effective in every aspect. They have personnel specially trained to oversee the effectiveness of every strategy regarding sustainability. Continuous meetings take place to increase their level of compliance and efficiency; is important to point out the openness of the executives to new ideas to innovate and create; they believe that quality and sustainability have a clear interdependence and that is why they are willingly doing everything in their hands to fulfil it.

Their level of compliance with the observation guide is 100%, with both hotels showing signs of a new culture oriented to sustainability. They fulfil every aspect of the com-

pliance guide and even exceed it with more creative solutions to reach sustainability. They have what they call 'green teams' who propose and design sustainability strategies. They motivate employees to recycle by using money from selling materials such as plastic, paper and tin cans for organizing special celebrations, such as Mother´s Day and Christmas and buying gifts for them.

Rosario Hotels

A very strong contrast was observed for the two studied Rosario hotels. Hotel El Yauco seeks sustainability recognition by following a specific methodology derived from a program promoted by the state government and an NGO; they have obtained external advice and have organized teams to fulfil sustainability strategy objectives. They perceive these actions as a way to increase their competitiveness and have started to implement a whole new vision towards the way they do business; specifically, the perception of the owner and the manager is that it is their moral and ethical responsibility to take action for sustainability.

Hotel EL Yauco is increasing their efforts by continuously training their employees, implementing new practices and strategies and have achieved a 70% level of compliance, showing that it is on the way to be recognized as a sustainable hotel but with more recycling actions and signalling required.

It was apparent that the Bellavista hotel does not have a clear idea of how to deal with sustainability or how to achieve it. Their perception is vague about the subject and they do not think that is an important issue for their business, so they do not take action to fulfil it. There is no training or any dissemination of ideas regarding sustainability. The hotel has a low level of compliance (33%) and there are no recycling actions or signalling, with water and energy savings being marginal.

Studied hotels in Ganescu's model

According to Table 3, although most hotels studied show a willingness to integrate sustainability, there is still a significant lack of knowledge about how to do this. Only in the specific case of Mazatlán is there clear knowledge of the route to be followed to achieve sustainability; this is due to the intervention of both official and non-governmental organizations (Ibarra, Velarde, Olmos, & Alvarado, 2017).

On the other extreme, what is found in places such as El Fuerte and El Rosario is that there is an almost total disengagement from external agencies in terms of sustainability. In Los Mochis, the studied hotels only seek to meet official requirements to reduce input costs. In the case of Culiacan, the studied hotels show a promising advance in sustainability that nevertheless needs more external participation to achieve proposed objectives.

**Table 3** Corporate Sustainability compliance phase in the hotels

Phase Hotel	Phase 1 Rejection	Phase 2 Ignorance	Phase 3 Conformity	Phase 4 Efficiency	Phase 5 Proactive strategies	Phase 6 Corporate Sustainability
Torres del Fuerte		■				
El Fuerte		■				
Posada del Hidalgo			■			
Santa Anita			■			
Plaza Inn			■			
Lucerna				■		
Ejecutivo				■		
Playa						■
El CID						■
Yauco				■		
Bellavista		■				

Source: Ganescu (2012)

Discussion

Sustainability in tourism can improve competitiveness and stakeholder perceptions (Lozano, 2015). However, the path to reach a high state of sustainability is not easy, with Ganescu (2012) noting that there are always competing forces in this area (Figure 1).

While some hotels were found to be primarily focussed on short-term profits, others appear to be making significant steps towards developing a greener business model. Unfortunately, however, the economic interests of many tourist businesses prevail over ethical or moral responsibilities associated with being sustainable (Moscardo & Murphy, 2014; Mowforth & Munt, 2009). However, sustainability can be an excellent way to do business and increase profits if well applied (Esty & Charnovitz, 2013), which can be seen in hotels such as those studied in Mazatlán.

Figure 1 Analysis of sustainable business forces
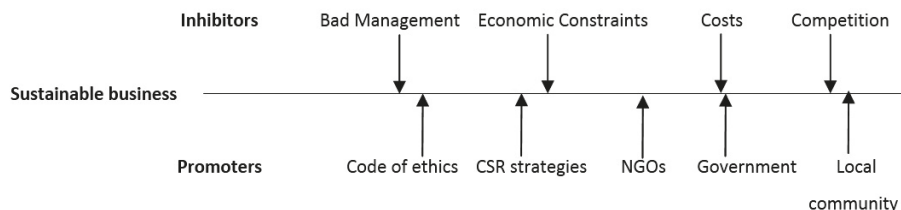
Source: Ganescu (2012)

Education regarding sustainability should be increased in the tourism field, with co-ordinated action among the institutions. Because society is becoming more aware of sustainability (Bansal & DesJardine, 2014; Doody, 2010), businesses cannot avoid this trend if they want to survive.

Conclusion

This case study has shown that most Sinaloa hotels apply sustainability as a business strategy, particularly in Mazatlán, where certifications and recognition related to sustainability are being sought. Culiacan hotels showed a clear interest in the subject but have yet to develop a clear methodology. Los Mochis hotels showed a lack of a culture on the subject and only try to meet the immediate authority demands, while El Fuerte hotels were more aware of sustainability but have not been prepared and informed clearly about how to achieve it. In El Rosario, there was a very strong contrast, with one hotel seeking recognition as being sustainable following a specific methodology derived from a program promoted by the state government and a private initiative, while another hotel simply has no idea about the issue, nor how to achieve change in this area.

One way to address these obvious disparities in sustainability knowledge and implementation would be to implement continuing education and training programs and not only to see it as a requirement of official authorities (Maldonado, 2009). Organizational sustainability is essentially based on cultural change through the adoption of a new set of values and shared assumptions that would become the guide for the establishment and formulation of relevant plans and strategies. It is in the integration of habits and practices tending to minimize the impact of the activity of the company what will truly define it as sustainable.

In conclusion, it is pertinent to suggest to the hotel industry of Sinaloa, the joint work of official authorities, private initiative and non-governmental organizations to create a synergy that disseminates and promotes the inclusion of sustainability as a new relevant and desirable business model because the alternative with operations with harmful environmental effects is not at all desirable, with pollution of natural resources, global warming and others that jeopardize the viability of current economic models in the near future.

The prevalence of Mazatlán as the most important destination of the state should not be a barrier to seeking the implementation of sustainability strategies and business models in other cities and towns with regular tourist activity, such as the ones studied here. Tourism can be a driver of social and economic development, but only if all stakeholders share responsibilities and a similar vision of the future.

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