Sustainable development of environment in the tourism destination areas: tourists’ perception of the issue

P. Zakharchenko¹, G. Kostenko¹, S. Zhvanenko¹ and V. Mukhin¹

¹ Department of Economics, Entrepreneurship and Finance, Berdyansk State Pedagogical University, 4 Schmidta St., Berdyansk, Ukraine

Correspondence: mukhinviktors@gmail.com

Abstract. This article considers the role of the sustainable development concept in the tourism destination areas. The existing of tourism gives many benefits to such areas, but it also causes and aggravates the environment problems, leading to the degradation of natural capital. To deal with these problems, modern science suggests to implement sustainable initiatives in the regions, making their infrastructure more sustainable. It was shown that it is the responsibility of business and a local government to bring the green projects to life, but there is need to take into account the tourists’ interests. The tourists’ awareness of the sustainability concept and their demand for the sustainable products have been studied. The main goals of this paper are to look at the current state of the dealing with the issue and to outline goals for the future researches in this field. It was found that there is significant demand for sustainable and environmentally friendly tourism and implementing it on the tourism destination areas will help to gain the advantages in the long run.

1. Introduction

Over the past decades, one of the most vital and central topic in academic, political and social discussions have been the environmental degradation. It becomes more and more evident that to deal with the problem we need to integrate the sustainable principles in the regional development plans. This integration leaded to emerging of new theories, such as growth, which play an important role in the sustainability theory in the last few years.

One of the most dynamically developing industry is tourism. Tourism sector is regarded as the biggest and one of the most dynamically developing industry in the world. Many regions and countries consider this industry as the main source of employment, income for the businesses and government, and the growth of private sector. So undoubtedly, there are significant positive effects the industry has on the tourism destination, but, at the same time, tourism activities in the areas of tourism can leave environmental consequences either directly or indirectly [1].

That is why sustainable development is becoming an increasingly important issue in the tourism sector and the local governments starts to take into account the problem when developing strategic plans for local environment, economic and social development.

There is a clear reason why sustainability is an especially important subject for the tourism sector, may be even more important than in another area. Tourism depends on the factors a destination has and can offer for its guests. That is mainly local culture, traditions formed on the certain areas, flora, fauna and landscape. The environmental factors are the ones that are mostly affected by the visitors and needed the protection, environment is a key component of tourism.
The tourists have an impact on environment through the infrastructure, that enable them staying and using attractions. People generate a huge amount of waste when eating in the restaurants and living in the hotels. Amount of water consumed per person per day in the tourism areas is large that in other places. Transportation is responsible for significant volume of the gas and noise pollution. All of these, without any doubts, have a negative and devastating effect on the environment and local residents need to deal with it. It is declaring by the academics, activists and politicians that hotels have to integrate energy efficiency into their decisions; the local governments need to build such a transport system in which bicycles, public transport and electrical vehicles are dominated; and landscape, flora and fauna must be protected from degradation.

The problems mentioned above relate to the supply side of the tourism industry. The local governments, the owners of the hotels and administrations of the national parks should realize and try to reduce negative impact on environment, but it requires significant amount of financial resources and time. That is why there is need to take into account the tourists’ perception of the environment issues. So all the stakeholders should take part in the implementation of sustainable models in life.

So it is quite interesting to study demand side of the tourism sector in conditions of sustainable development. People compare the tourist destinations when choosing a place for their vacation and have a certain expectation of a desirable location. So before placing local development on a sustainable path it need to study how tourists will react on that. We need to know what people think about sustainable development and even whether they know what it is after all. It is controversial question of whether there is demand for sustainable tourism and whether people are ready to pay extra money for the experience of visiting a place or city in which environment is protected and cared about.

Social and environment development and economic growth of any region are final goal of its policy. Even though everyone accepts the fact of necessity of implementing sustainable practices, it isn't an overnight process and require significant amount of resources. So there is the good question whether or not there is any sense of sustainability for business. After all, if applying sustainable practice in the local development models doesn’t bring positive results in the form of attraction more tourists, it will be difficult to encourage local communities to develop new sustainable forms that can be labelled as “green”.

To answer these question, we need to study the current state of demand for sustainability and how it changed over time. The ultimate aim of this study is to explore clearly the concept of sustainable tourism from the demand side of the industry and to clarify the way in which it has an effect on increasing of popularity of a destination and improving its environment. We need to study demand for vacation in the places that can call themselves as “green”. Except for that we should analyze how the customers will react if the price will rise on green tourism.

2. Related works
Significant scientific contribution to the formation of a methodology of evaluating and analysing of sustainable products demand was made by representatives of different schools of environmental thought and commercial companies.

The findings of Hannes Egli, Roger Wehrli, Martin Lutzenberger, Dieter Pfister, Jürg Schwarz and Jürg Stettler have become the starting points for further research in the field. Today different scientists, tourism and measurement companies (Booking.com, TripAdvisor, Nielsen N.V. etc.) are trying to evaluate and predict demand to offer more competitive products.

Despite the considerable number of researches devoted to the issue there is no common methodology that would let to compare different finding and analyze the trends over time.

3. Results of research
Over the last decade there have been quite a lot of researches on the demand for sustainability of a tourism destination. The studies of the issue have been making different scientists all over the world.

The most fundamental study is the one made by Wehrli, Egli, Lutzenberger and Pfister in 2011. In their study about sustainable tourism demand, they primarily tried to reveal what tourists understand
about sustainability concept and what does sustainable development mean for them. In the second part of the study they wanted to investigate the question of whether the tourists buy tourism products that can be called sustainable in the real life. According to the results of the conducted study, 22% of the people who participated in the survey said that the sustainability was among the main top three factors that influence the way people make their choice about destination. 23% of the survey participants booked a sustainable product. This study is seen to be helpful to understand the way tourists perceive sustainable tourism concepts [2].

Another study about the demand side of sustainable tourism market is the study conducted by Brau (2008). In the study, made in Sardinia Island, Italy, questioned the assumption of the influencing of sustainable tourism policies on the demand. The researcher wanted to know whether the demand increases in this case and how much. According to the results, the visitors indicated that environmental quality, easy access to the touristic attraction centers and were their main preferences for vacation [3].

In the most researches made in the countries of North America and Europe are raised three questions:

- what people actually understand under the term and concept of sustainable tourism and their evaluation of the importance of different sustainable products;
- evaluation of demand for sustainable tourism;
- testing a hypothesis of whether the tourists are willing to pay more for such sustainable products.

The first issue about understanding sustainable tourism is the essential one.

The first question raised when comparing the researches is the possibility of comparison them, whether can we say that the preferences to sustainable tourism in people from different countries are similar. Except for this, for elaborating the development strategy and predicting the future tourism demand for some location it is crucially important to understand how potential tourists interpret sustainability.

In survey conducted by Yaiza López-Sánchez, Pulido-Fernández and Juan Ignacio (2014) in Spain some difference in interpretation of sustainability you can see in the Table 1 [4].

| Being A Sustainable Destination Means                                      | Yes  | No  |
|--------------------------------------------------------------------------|------|-----|
| respecting and caring for the environment                               | 94.5 | 5.5 |
| local businesses benefiting from tourism                                 | 71.39| 28.61|
| allowing an increase of the number of tourists per year                  | 51.71| 48.29|
| tourism improving the living conditions of the local population          | 61.74| 38.26|
| the destination being able to continue to grow                          | 51.96| 48.04|
| destination’s residents being able to decide about tourism growth       | 45.1 | 54.89|
| the destination being able to satisfy all tourists’ needs                | 60.64| 39.36|

As noted, there is a widespread belief that sustainability is directly linked to environmental conservation (94.50%), which proves the link, almost exclusively, between sustainability and environmental issues, due to the outdated idea that the sustainability of a destination can only be achieved through actions in favor of the conservation and maintenance of the environment, the conservation of the biodiversity, the rational use of natural resources, etc. Regarding the social and economic benefits that sustainable management implies for the territory, 71.39% of the respondents relate sustainability of the destination to the generation of profit by local businesses and 61.74% of them defend the idea that sustainable tourism improves the standard of living of the local population. Nevertheless, the percentage falls considerably (45.11%) when it is suggested that
sustainability is linked to the fact that residents themselves are those who decide about the tourism growth of the destination [4].

Even though almost everyone accept that sustainability is directly and indirectly linked to environmental issues, there is different opinion about importance of ecological attributes of sustainable tourism products.

**Table 2.** Ecological attributes of sustainable tourism products [2].

| Attributes                | Agree | Indifferent | Disagree |
|---------------------------|-------|-------------|----------|
| Public transport          | 58    | 25          | 17       |
| Use of renewable energy   | 59    | 26          | 15       |
| Resource efficiency       | 62    | 23          | 15       |
| Waste management          | 65    | 23          | 12       |
| Preservation of biodiversity | 65    | 25          | 10       |

As can be seen from the Table 2, only 10% of people disagree that biodiversity is ecological attributes of sustainable tourism products, but 17% of the tourists told that in their opinion public transport is not part of sustainable tourism products [2]. So conducting your own study on the local area it need to take into account the fact that people doesn’t understand what terms “sustainability” means. It is also noticeable that people's own preferences influence the importance of some attributes of sustainable tourism for them. For instance, when in some area tourists prefer to use their own vehicle, they will not like if private transport will be limited in favor of public transport and bicycles.

One of the firsts researches of the demand for sustainable tourism was made by Wehrli, Egli, Lutzenberger and Pfister in 2011. They came to the conclusion that 22 % of the survey participants said that the sustainability was among the top three factors influencing the choice of destination. Since then there were multiple studies outlining demand for sustainable tourism. A 2015 study by Expedia found that almost a third of consumers (29%) would choose one company over another based on their environmental background, compared with 19% in 2011. The study done by Booking.com in 2018 found that over half (55%) of global travelers reported being more likely to book the sustainable travel services than they were in the last year and in 2019 about 70% of the global travelers mentioned that they would be more possibly to book a hotel and make sustainable travel decisions knowing that they were eco-friendly [5].

Even though there is no doubt that there is some demand for sustainable tourism and it is rising, it is difficult to say how the customers act in real life. Implementation of the sustainable methods requires some expenses on the business and government side. That can increase prices on the sustainable products compared the ones offered by the “grey” business. As León [6] claims, sustainability makes a significant contribution in product differentiation, and this facilitates to offer a price above the average level, using a market power that would rise the profitability of tourism industry for the destination. As said Hedlund [7], tourists should be willing to pay more if they want to be more sustainable, that is because usually ecologically sustainable tourism products are rarer and more expensive than their alternatives which are less sustainable.

So in this circumstances the researches need to look at the willingness of the tourist to pay more for such products. Price is one of the economic instruments, so it is interesting to look at the willingness to pay in the framework of the sustainable tourism management in the destinations that are trying to model towards sustainability.

Among the direct methods group/declared preferences, Contingent Valuation Method lets calculate the Willingness to Pay using different models. The final decision of model depends on the selection size and on the asked questions and its formats. Some of them are auction, referendum and open
format. However, there is still no final division and consensus about which format is the best, in which situation and cases it should be applied, and so on [8].

A study made by a global information and measurement company Nielsen N.V. in 2015 found that about the half of global customers are ready to pay more for products offered by the companies that are social responsible [9].

In a study conducted in Spain by Juan Ignacio Pulido-Fernández [8] showed that 26.6% of respondents are willing to pay if the destination’s contributions to sustainability would raise the price level of the sustainable tourism products.

Another study made by Ozan Bahar [3] in 2019 54.3% of the participants (mainly from UK and Germany) are inclined to pay more for a sustainable tourism product. And that study also showed that 47.9% of the tourists mentioned that the prices are less important for them then the sustainability.

As we see, according to the different researches, at least quarter of tourists are ready to pay more, but the situation changes when analyzing how much the prices can be higher. It is definitely expected that a higher price causes a lower demand and a lower probability of selecting a specific product. This can be calculated using the marginal willingness to pay coefficient.

All the studies conducted in Europe and US show that the tourists would not pay more than 10%. So there is no big market for tourism products with high prices because the readiness to pay for attributes of sustainable tourism is quiet low.

4. Conclusions

It is well-known that urban areas, like cities, are among the top of the actors contributing to climate change and it is the places where environmental issues are the most noticeable. These problems are even more exacerbated on the areas that are attractive for tourists. In such tourism destinations, there are high amount of air pollution produced by private transport, negative pressure on the flora and fauna etc. So tourism makes significant contribution to environment degradation.

But at the time, tourism is one of the most prominent industries for a lot of local communities, cities and regions. So if the socialites want to ensure environmental factors to be safety in the long run, it needs to change its local development model to the green one and try to enhance the attractiveness of the certain for the tourists.

The term sustainable tourism describes methods, programmes and policies that take into take into consideration not only needs of communities that support or are affected by tourist projects and the environment (supply side), but also the expectations of tourists about responsible natural resource management (demand).

Sustainable tourism seeks to be more energy efficient (for example by using renewable energy); produce less pollution and minimize waste; consume water more efficiently; protect biodiversity, support tolerance; promote cultural and traditional values; grow local income and at the very end improve livelihoods and reduce poverty. Doing tourism businesses in a more sustainable way benefits local society, raises knowing and support for the sustainable use of natural capital [10].

The conclusions from the study confirm the hypothesis that there is place for sustainable tourism as one of market segment. The tourists have some level of knowledge about the sustainability, have the demand for it, want and ready to pay more money to visit a more sustainable destination.

The research results show that the preservation of cultural and natural heritage is important not only for sustainable tourism, but also for tourism demand. Participants indicated that natural heritage are very important factors in choosing a destination and accommodation. About half of the visitors consider the landscape, flora, fauna and sustainability factors of the destination when making a decision about vacation.

Analysing shows that the customers have slightly different opinions about the importance and connection of different attributes to sustainable tourism. For sure, here the preferences of the people play a role. Not everyone accepts importance of limiting private transport in favour to public transport in achieving sustainable development. We guess that this is just because people prefer to use their own
transport. So it would be interested to test this hypothesis, especially in the countries with high level of private transport and low demand for public transport, car sharing and the bicycles.

Even though there is demand for sustainable tourism and people say that they are ready pay more for this experience (about 30-50% of tourists in Europe and US), in practice it turns out that people would not pay more than 10% compared to prices of the identical services in less sustainable places. So there is no big market for tourism products with high prices because the readiness to pay for attributes of sustainable tourism is quiet low. But, sustainable tourism products are new and unique, and offering them for the market can be a successful differentiation strategy. Developing sustainable products could increase a variety of the existing array of products and therefor gain the market share of a company relative to its competitors, this it because this study showed that tourists highly prefer sustainable products. Hence it is expected that part of the consumers will switch to sustainable offers if these products will be not more expensive than competitors' products which are non-sustainable.

Analysing different studies conducted by the scientists in different countries, there are still some questions for the further researches:

- First of all, for forecasting and planning goals there is need to see trends, changes of the tourist’s preferences. As all the studies are condemned in different countries and by different scientists it is quite difficult to track the changes in people opinion.
- The second question comes from the first one. It would be interesting to develop a common methodology on studying the tourists demand for sustainable products. This would let to compare finding and find common trends.
- It would be interesting to see the demand on the sustainable services not by polling the potential tourists, but comparing the target location with the one that exists in the similar environment, but has more progress in the implementation of the sustainable methods.

References
[1] Asadzadeh A and Mir Sajjad Seyyed Mousavi 2017 The Role of Tourism on the Environment and Its Governing Law Electronic Journal of Biology 13(2) 152-158
[2] Wehrli R, Egli H, Lutzenberger M, Pfister D, Schwarz J and Stettler J 2011 Is there Demand for Sustainable Tourism? ITW Working Paper Tourism 01 p.153
[3] Bahar O and Çelik N An evaluation on sustainable tourism demand: The case of Muğla, Turkey Journal of Tourism Theory and Research 5(3) 370-379
[4] Pulido-Fernández J and López-Sánchez Y 2014 Perception Of Sustainability Of A Tourism Destination:Analysis From Tourist Expectations International Business & Economics Research Journal 13(7) 1587-98
[5] Center for Responsible Travel 2019 The Case for Responsible Travel: Trends & Statistics (Washington) p.22
[6] León C 2004 Desarrollo sostenible, medio ambiente y preferencias en el turismo Papel. Econ. Española 102 287–97
[7] Hedlund T 2011 The impact of values, environmental concern, and willingness to accept economic sacrifices to protect the environment on tourists’ intentions to buy ecologically sustainable tourism alternatives Tourism and Hospitality Research 11 278–88
[8] Pulido-Fernández J and López-Sánchez Y 2016 Are Tourists Really Willing to Pay More for Sustainable Destinations? Sustainability 8 1240
[9] The Nielsen Company 2019 Sustainable shoppers buy the change they wish to see in the world (New York) p.46
[10] World Tourism Organization (UNWTO) and the United Nations Environment Programme (UNEP) 2012 Tourism in the Green Economy – Background Report (Madrid) p.167