Abstract. This study is aimed at analyzing hotel enterprises in the Rostov region and identifying the main approaches to ensuring environmental safety; recommendations for the implementation of environmental innovations in hotel enterprises are proposed, which can significantly reduce the negative impact on human health and the environment.

1 Introduction

The hotel business today is a fast-growing and promising sector of the economy. The stability of income, the growth of the number of travelers led to an increase in the number of hotels and hotels and the emergence of new forms of accommodation. This is followed by an increase in the negative contribution of the hotel industry to environmental degradation. An international environmental organization conducted a study that found that one hotel with a capacity of 100-150 rooms on average consumes the same amount of energy per week of operation as 100 private homes, and it creates much more waste. One of the reasons for such large energy consumption is the illumination 24 hours a day, seven days a week. In addition, a large amount of energy is spent on lighting and heating empty rooms, corridors and office spaces. Collective accommodation facilities are a source of a large amount of solid waste, due to the fact that soaps, shampoos and other hygiene and food items that are reused at home are immediately discarded in the hotel along with disposable packaging.

An important condition for attracting tourists is to increase the comfort of the hotel and improve the quality of services provided. The growth of the international tourism market places increased demands on service providers in this area. According to hotel service research, it is becoming most profitable to be a hotel that seeks to preserve the natural environment. Leading experts of the hotel market attribute the tendency to environmental friendliness to the main global trends that will be especially relevant in the near future. Although many well-known hotel chains already now have their environmental specialists. Environmental issues occupy a prominent place in the activities of the international hotel Association (IGA). The IHEYA Foundation was established as part of the MGA (International hotel environmental initiative), whose main task is to collect and disseminate information on environmental issues related to the hotel industry.

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The current economic situation, formed against the background of the crisis of recent years, forces enterprises in the hotel sector to look for new approaches to their internal development. Competition in this area of business has become much more intense, and the success of modern hotels increasingly depends on whether they are on an innovative track, because innovation is one of the most important factors in improving the competitiveness of any enterprise. Hotel owners have two main tasks: to attract as many customers as possible (to rent the maximum number of rooms) and to make sure that the guest becomes a regular customer. It is almost impossible to solve these problems without resorting to innovations. The fight for each guest, especially in a crisis, requires the introduction of the maximum number of innovations, changes in both technology and views on doing business. Despite the economic crisis, environmental issues still remain in the focus of attention of many representatives of the hotel business. Of course, during the recession, most of the environmental ideas had to be abandoned, but according to research by Cornell University employees, about 90% of hotel guests surveyed are willing to overpay for environmental products and services. Many hotel customers, especially those with higher-than-average incomes and education, remain concerned about environmental issues. These people are aware that their own actions and the operation of the hotels they use have a negative impact on nature. It is" consciousness "of this kind that gives "green" hotels a good chance for development. Based on the conceptual similarities in the definitions of "environmental innovation", as well as taking into account the differences that exist here among Russian and foreign scientists, the author makes the conclusion that environmental innovations are new products, technologies, as well as ways of organizing production and social programs consisting of new or changed processes, methods, and systems that improve the state of the environment, reduce environmental risks, pollution, or other negative environmental consequences in various fields of activity. Thanks to innovations, business becomes more efficient and socially active. Thus, innovations in the hotel can contribute to: attracting additional revenue; identifying competitive advantages in the market; increasing market share; reducing costs; improving the service process, as well as improving the efficiency of the hotel. If there is at least one of the factors listed above fulfilled, then innovation may be considered to be appropriate and necessary.

2 Materials and methods

The works of the following authors are devoted to security issues in hotel enterprises: Hong-bumm Kim, Dong-Soo Lee, SunnyHam, 2013 [1], Eric S. W. Chan, Doris Lam, 2013 [2], Peter E. Tarlow, 2014 [3], Charles Brossman, 2016 [4]. The issues of providing additional services in hotel enterprises are covered in the works of the following authors: Özgür Davras, Meltem Caber 2019 [5], Asunción Beerli-Palacio, Josefa D. Martín-Santana, Crisanto Román-Montoya 2020 [6], Shan Liu, Baojun Gao, Michael Gallivan, Yeming Gong 2020 [7], Seongsoo Jang, Luiz Moutinho 2019 [8]. The research of trends and features of hotel business development in the world and in Russia is devoted to the works of such authors as: A. O. Nabil, Channouf Asma Al-Zaidi, 2016 [9], Mehmet Ali Köseoglu, Mehmet Altın Eric Chan, Omer Faruk Aladag, 2020 [10], 11) R. M. Torres, J. H. Momsen [11], , Ivanov V., Popov S., Dontsov N., Ekinil G., Oleynikova Ju., Denisenko Ju. 2020 [12], L. N. Kazmina, V. S. Makarenko, V. V. Provotorina, T. N. Grigorenko, A. S. Petrenko, G. E. ekinil, E. M Shevchenko [13,14,15]. The basis for creating an "eco-friendly" hotel is the desire to maximize the use of natural resources and natural materials in order not to pollute the atmosphere. Hotels ' compliance with the requirements is confirmed by certification and assignment of certain marks. In 1991 the International Association for Standardization (ISO) has created the ISO 14001 (EMS) environmental management standard. To match, for example, the organization must confirm that it has a
special policy on environmental protection. The ISO 14001 standard is the minimum that every company must adhere to in order to minimize the harm caused to the environment. In a number of countries in addition to ISO 14001 own standards were created, for example, in the UK — BS 7750 Specification for Environmental Management Systems, in Canada-CAN/CSA Z750-94: Guidelines for an Environmental Management System, in the European Union — EMAS. For certification of eco-hotels, there is also an authoritative system "Leadership in energy and environmental design". Only environmentally friendly structures can receive a LEED certificate. The objective, globally recognized LEED rating relies on energy and water savings, as well as on environmentally friendly raw materials. LEED is a system of energy saving and environment protecting with the use of solar panels.

There are a number of organizations worldwide that develop and implement environmental management systems. British Airways Holidays (BAH) is one of the largest air carriers and tour operators in the world. The company regularly monitors hotels in the Caribbean and provides all possible assistance to accommodation facilities with good environmental management. Certification for Sustainable Tourism (CST) is one of the leading and most successful companies in implementing ecotourism practices in the Western hemisphere. It has managed to create its own market through the development of a state environmental management program and its active dissemination; it is focused on the tourism industry as a whole, mainly hotels are certified. Green Globe is a British company that actively promotes and implements ecotourism, operates in more than 50 countries, and is a full member of the UN Tourism organization and the world travel and tourism Council. The criteria for obtaining certification include the main standard requirements for reducing waste, saving electricity, implementing an environmental management system, social and cultural development, risk reduction, and assessing the relationship between the geographical location of a hotel or resort and its impact on the environment. Green Key Company (Denmark) develops certification programs for catering services of hotels, hostels, Congress centers, and holiday homes. The company's eco-label has been awarded to 2,700 hotels and other institutions in 56 countries. In order to receive the eco-quality mark, the company must set standards for water consumption and saving, implement a system for reusing resources, and start purchasing environmentally friendly organic products. BREEAM (Building Research Establishment Environmental Assessment Method or "Environmental Performance Assessment Method from The Construction Research Institute", UK). BREEAM was the first standard for assessing the environmental friendliness of real estate. The international standard ISO 14001 is quite strict, and currently a number of hotels in Western Europe are certified according to it-in Germany, Portugal and Sweden, in particular, Forum Hotels, Intercontinental Hotels, Lusotur Golfes, Renaissance, Sanga Saby Kurs, Konference Center, and in Southeast Asia (Hong Kong and Mauritius) it is Island Shangrila-La Hotel, Kowloon Shangrila-LaHotel, Labourdonnais Waterfront Hotel.

The research methodology is based on the use of the comparative analysis method, which made it possible to compare hotel enterprises of the Rostov region districts in order to objectively assess their infrastructure and the specifics of providing basic and additional services. The use of the typification method allowed us to consider the existing hotel enterprises from the point of view of the features of the organization of guest service. The method of long-term planning was used to develop recommendations for improving hotel enterprises. Scientific statements, conclusions and recommendations contained in the article are based on the use of combined methods of historical and logical analysis, economic and statistical method.
3 Results

Currently, there are about 4,500 rural tourist accommodation facilities in Russia, including 3,500 rural guest houses and about 1,000 agro-tourist farms. In the Rostov region, there are about 1000 accommodation facilities, of which a significant part, about 700, is urban. Thus, rural accommodation facilities of various types account for about 300 units, with an average capacity of 15 rooms, and the average cost of accommodation per night is 1,900 rubles. The total number of rooms in rural hotels is 1700 rooms, beds - more than 5000. As can be seen from the figures, the share of enterprises in the rural hospitality industry in the Rostov region is insignificant. The Rostov region includes 55 administrative divisions, comprising 12 urban districts and 43 municipal districts, as well as 408 administrative divisions: 18 urban and 390 rural settlements. The population of the region according to Rosstat is 4195327 people, of which 68% are urban residents, 32% are rural. The rural population density ranges from 8 to more than 30 people per square kilometer. Of the 43 municipal districts in the region, 28 have a rural population of 100% of the total population. In other districts, the ratio of urban to rural population varies from 14% to 65% of the total population of the district, which indicates an uneven territorial distribution of the population.

The city of Rostov-on-Don and the Rostov region annually attract millions of tourists with its rich history, unique nature, hospitable residents, and original Cossack culture. For detailed analysis as model districts of the Rostov region there were selected Semikarakorsk, Ust-Donetsk, Azov, and Myasnikovsky. These areas have a favorable physical and geographical location, developed transport infrastructure, rich history, unique culture and they are close to the regional center. A comparative analysis of rural accommodation facilities in typical districts of the region is given in table 1.

Table 1. The main indicators of rural accommodation facilities in typical districts of the Rostov region.

| no. № | Name                      | Number of accommodation facilities | Name                      | Characteristics of accommodation facilities |
|-------|--------------------------|-----------------------------------|---------------------------|---------------------------------------------|
| Azov district                           |                                      | Number of rooms | Price, RUB |
| 1.    | kh. Elbuzd               | 1                                 | AV Motel Мотель "АВ"  |                                                |
| 2.    | Zadonsky village         | 1                                 | guest house "Edem"       | 3 1500                                       |
| 3.    | Koluzaevo village        | 1                                 | hotel "MiG"              | 8 2200                                       |
| 4.    | Kuleshovka village       | 1                                 | hotel "Versailles"       | 4 2000                                       |
| 5.    | p. Vegetable             | 2                                 | guest house "Amsterdam"  | 19 3000                                      |
| 6.    | kh. Pavlo-Ochakovo       | 7                                 | recreation center "Navigator" | 9 1600                               |
|       |                          |                                    | recreation center "Navigator" | 6 2000                               |
|       |                          |                                    | recreation center "Oasis" | 8 2000                                       |
|       |                          |                                    | the base of rest "Sandy shore" | 12 2500                             |
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|-----|-----------------------|-----------------------------------|---------------------------------------------|-----------------|------------|
| 7.  | kh. Rogozhkino        | 3                                 | recreation center "Edem"                     | 12              | 2300       |
|     |                       |                                   | the base of rest "Azov coast"               | 10              | 2500       |
|     |                       |                                   | recreation center "Albatros"                | 15              | 2500       |
| 8.  | s. Samarskoe          | 3                                 | guest house "Delta Dona"                    | 6               | 2500       |
|     |                       |                                   | hotel "Rogozhkino"                          | 16              | 2000       |
|     |                       |                                   | guest house "V Rogozhkino"                  | 5               | 1200       |
| 9.  | s. Stefanidinodar     | 2                                 | motel "Tesla"                               | 3               | 1200       |
|     |                       |                                   | hotel "Kazachiy Dozor"                      | 17              | 2400       |
|     |                       |                                   | hotel "Olym"                                | 6               | 1200       |
| 10. | kh. Ust-koysug        | 1                                 | hotel "Old House Resort&Spa"                | 23              | 13000      |
| 11. | kh. Chumbura-Kosa     | 1                                 | recreation Center "Chumbura-Kosa"           | 4               | 1500       |

### Myasnikovsky district

| 1.  | kh. Kalinin           | 1                                 | recreation Center "Firefly"                  | 22              | 5100       |
| 2.  | kh. Leninavan         | 3                                 | Hotel RIO                                   | 15              | 2500       |
|     |                       |                                   | hotel "Khutorok"                            | 11              | 2500       |
|     |                       |                                   | hotel and bath complex "Dvin"               | 4               | 2000       |
| 3.  | kh. Leninakan         | 2                                 | Hostel "Rus"                                | 4               | 378        |
|     |                       |                                   | mini hotel "Voyage"                         | 4               | 2000       |
| 4.  | Chaltyr village       | 7                                 | hotel "Fazenda"                             | 15              | 800        |
|     |                       |                                   | cafe-hotel "Hermes"                         | 5               | 1500       |
|     |                       |                                   | GRK "Anush"                                 | 4               | 1500       |
|     |                       |                                   | hotel "Javakhk"                              | 8               | 1500       |
|     |                       |                                   | hotel "Olym"                                | 4               | 1200       |
|     |                       |                                   | cafe-hotel "Chanson"                        | 4               | 1300       |
|     |                       |                                   | hotel "zheychuzhina"                        | 16              | 2000       |

### Semikarakorsky district
|   | kh. Limansky CountryHouse | 1 | Utkino Hotel CountryHouse | 42 | 8500 |
|---|--------------------------|---|---------------------------|----|------|
|   | 1.                       |   | Ust-Donets district       |    |      |
|   | 1.                       |   | kh. Aparinsky Tourist     | 13 | 1500 |
|   | 2.                       | 6 | art. Melikhovskaya        | 12 | 1500 |
|   | 2.                       |   | recreation center "Saturn"|    |      |
|   | 2.                       |   | health resort "Melikhovsky"| 18 | 1500 |
|   | 2.                       |   | recreation center "Ark"   |  6 | 2500 |
|   | 2.                       |   | recreation center "Quiet don"| 26 | 1300 |
|   | 2.                       |   | hotel "Tanais"            | 10 | 1500 |
|   | 2.                       |   | recreation center "Kazachy Bereg"|  8 | 1500 |
|   | 3.                       | 2 | kh. Pukhlyakovskiy        | 11 | 2100 |
|   | 3.                       |   | hotel "Lost World"        |    |      |
|   | 3.                       |   | tourist complex           |  4 | 2000 |
|   | 3.                       |   | "pukhlyakovskov Cossack camp"|    |      |
|   | 4.                       | 2 | p. Ust-Donetskiy          |  7 | 2500 |
|   | 4.                       |   | mini hotel "Levada"       |    |      |
|   | 4.                       |   | hotel "Volna"             | 10 | 1500 |

Nature, climate, history, culture and traditional cuisine of the Azov region contribute to the development of tourism. Guests of the Azov region are attracted by the don Delta, the Alexander forest, located on a protected area in the Azov steppes and it is a rare ecological zone in the Rostov region. The Myasnikovsky district is an administrative division of the Rostov region, whose territory is directly adjacent to the regional center – the city of Rostov-on-Don, which is a positive factor for the successful development of the hotel industry, sightseeing activities, and tourism. The features of development of the market of hotel services in the Myasnikovsky district of the Rostov region are due to natural and recreational conditions, convenient location, proximity to transportation; concentration of a large number of quite popular public catering enterprises, which are particularly popular as a resting place and holding different celebrations and wedding ceremonies among consumers nearby communities, including cities with a population over one million, Rostov-on-Don. The Ust-Donetsky district is a unique historical and natural complex. Preserved in villages and farms Kurenis and temples, unique natural monuments-pristine steppe, bayrachnye forests, clean reservoirs and springs, picturesque spurs of the Donetsk ridge give a great opportunity to feel the spirit of the Cossack freemen. From year to year, lovers of quiet, contemplative recreation and supporters of active communication with nature – fishermen, mushroom pickers, archaeologists come here. The rich heritage of the Don Cossacks made the Ust-Donets district one of the centers of cultural and educational tourism and recreation in the Rostov region. On the territory of the Ust-Donets district there are five specially protected natural territories of regional significance: "Vlasov's Beam", "Razdorsky slopes", Kundryuchenskiye Sands, "Ogib"tract, "Zolotye Gorki". The villages of Razdorskaya and Melikhovskaya are famous for their spring waters, and in the village of Pukhlyakovskiy and art. Ust-Bystrynskaya the are wells with healing water.

The analyzed areas have unique natural and climatic, cultural and historical features that create prerequisites for the development of ecotourism.
4 Discussion

After analyzing the hotel enterprises of typical districts of the Rostov region, it is advisable to identify 7 areas of the hotel business in which it is possible to introduce eco-innovations: the Foundation and interior of the hotel; purchase of eco-friendly raw materials; convenience in the hotel; waste disposal; cleaning of the room Ford; food; staff training. Thanks to the introduction of environmental innovations in these areas, the hotel can significantly reduce the negative impact on human health and the environment. Hotel facilities, on the one hand, are one of the broadest aspects of management in this business, on the other – the most common area where hotel management focuses its efforts. This direction is the most common and easily implemented in operational activities, which the hotel can take without significant costs.

Currently, monitoring of energy consumption, water leakage, and waste disposal can be performed manually or using various special programs. This data can also be used to determine the company's environmental goals, and is often used when a hotel chooses ways to notify and familiarize customers with the level of its environmental impact. The purchase of eco-friendly materials (packaging, consumables, detergents, etc.) can significantly affect the overall operation of the hotel enterprise. When selecting such products, management should be guided by information regarding their durability and potential hazards to air, soil, and water quality when used (or misused). It is preferable to purchase such products in minimal packaging (or establish a partnership with a supplier that provides services for the return of containers for their storage), which will increase safety and reduce the risk of diseases for hotel employees. To improve the environmental situation, it is also proposed to introduce environmental innovations aimed at cleaning and maintaining the room stock, as well as the corridors and halls of the hotel. This will help minimize the impact of harmful chemicals on guests and staff, reduce waste, and reduce energy and water consumption. Another area that is often overlooked but is important for the successful implementation of eco-friendly hotel cleaning is staff training. The purchase of chemically safe cleaning materials and equipment does not guarantee that they will be used properly, so the company needs training and training of appropriate employees. Having a dynamic and environmentally friendly, responsible team of employees can also increase the customer's opinion of the hotel. Based on the study, we will compile a table describing the most common methods of increasing environmental responsibility in various areas of hotel business management (table 2).

The division of the hotel business into a number of interrelated areas provides an overview of the areas of application and implementation of environmental innovations in the enterprise, facilitates management decisions regarding the selection and evaluation of a particular innovation activity in the hotel, and is also the basis for analyzing the possibility of implementing environmental innovations in a particular enterprise in this sector. The hotel business, like any other type of business, is aimed at making a profit. Any innovative solution used in a hotel must have certain advantages that contribute to the achievement of the organization's goals. However, the introduction of environmental innovations (as well as any other innovative solutions) is associated with certain risks for the top management of the enterprise. To determine the need to introduce eco-innovations in the hotel's material base, it is necessary to assess the possible advantages and disadvantages associated with this type of innovation (table 3).

Based on the analysis of possible advantages and disadvantages observed in the implementation of environmental innovations, the top management of the hotel makes a decision on the validity of measures for the implementation of eco-innovations. Currently, environmental innovations are most in demand in luxury hotels, which call for preserving the environment through the introduction of eco-technologies in the hotel business. More
and more often, the media reports that representatives of the top-price hotel segment are taking the initiative in this direction and focusing their efforts on the environment (table 3). However, according to experts, representatives of "ecological" hotels do not always intend to preserve nature. In some cases, the top management of eco-hotels hold such events for the purpose of additional advertising.

Table 2. The Application of innovations in the hotel business.

| Scope of application scope of innovation | Application area of innovation | Application area of innovation |
|------------------------------------------|-------------------------------|-------------------------------|
| **Hotel facilities**                     |                               |                               |
| Energy saving monitoring                 | Technical Department          |                               |
| Efficient use of water supply            | Maids, plumbers               |                               |
| Preventive measures for equipment        | Technical Department          |                               |
|    maintenance                           |                               |                               |
| Reducing the amount of waste production  | All hotel employees           |                               |
|    and consumption                      |                               |                               |
| **Purchase of eco-friendly raw materials** |                               |                               |
| and materials                           | Minimization of packaging     | Supply Department              |
|                                          | material                      |                               |
|                                          | Purchase of environmentally   | Supply Department              |
|                                          | friendly materials             |                               |
| **Room cleaning**                        | Proper use of detergents      | Maids                         |
|                                          | (dilution if necessary)       |                               |
|                                          | Control over the consumption  | Manager of maids               |
|                                          | of cleaning products          |                               |
|                                          | Use of environmentally        | Supply Department              |
|                                          | friendly detergents           |                               |
| **Food**                                 | Purchasing seasonal products  | Restaurant purchasing         |
|                                          | (using local suppliers)       | department                    |
|                                          | Purchasing consumables in     | Purchase department           |
|                                          | natural, not synthetic        |                               |
|                                          | packaging                     |                               |
|                                          | Implementing procedures in    | Food department manager       |
|                                          | the kitchen that minimize     |                               |
|                                          | food chemical exposure, water |                               |
|                                          |    consumption and food       |                               |
|                                          |    waste                      |                               |
|                                          | Purchase for the restaurant   | Restaurant purchasing         |
|                                          |    and hotel conference       | department                    |
|                                          |    rooms                      |                               |
|                                          |    reusable or easily         |                               |
|                                          |    recyclable tableware       |                               |
|                                          |    instead of disposable      |                               |
| **Training**                             | Conducting meetings on the    | Human Resources Department,    |
|                                          |    implementation of          | department heads              |
|                                          |    environmental innovations,  |                               |
|                                          |    development and            |                               |
|                                          |    discussion of ways to      |                               |
|                                          |    successfully master the    |                               |
|                                          |    adopted innovations        |                               |
|                                          | Understanding of the company's| Top management                |
|                                          |    environmental policy by    |                               |
|                                          |    the hotel staff            |                               |
|                                          | Creation of a system of      | Top management                |
|                                          |    motivation and reward for  |                               |
|                                          |    employees' compliance with  |                               |
|                                          |    the company's environmental|                               |
|                                          |    policy                     |                               |
|                                          | Involvement of employees in   | Heads of departments          |
|                                          |    special programs that     |                               |
|                                          |    contribute to making       |                               |
|                                          |    environmental decisions in  |                               |
|                                          |    favor of the hotel, the    |                               |
|                                          |    employee himself and the   |                               |
|                                          |    guests                     |                               |
|                                          | Support for employees in      | Heads of departments          |
|                                          |    matters of interaction     |                               |
|                                          |    with the environment       |                               |
| **Waste management**                     | Use of recyclable waste       | Purchase department           |
| **Foundation**                           | The use of non-toxic building | Contractor hotel construction  |
| **hotels**                               |    materials when building    |                               |
|                                          |    construction               |                               |
| **Hotel interior**                       | Using sustainable materials   | Top management, supply        |
|                                          |    for creating a hotel       | department, decorator         |
|                                          |    interior                   |    (designer) outsourced      |

Compared to the recent past, there is an increased awareness of the importance of economical energy consumption. Today, many hotels place small cards in their rooms with a call to guests to use bed linen and towels again, and not to give the textiles to the Laundry immediately after the first use. Experts believe that the widespread use of such maps can significantly reduce water consumption and reduce the amount of waste. According to
experts, the hotel has a room capacity of 150 units. It will be able to save 72 thousand liters of water and 480 liters of soap every month if the rooms will be placed signs encouraging guests to use towels and bed linen again. To assist in the implementation of environmental measures, as well as monitoring the impact of activities of enterprises on the environment in the hotel industry, operate in international environmental programs and organizations. Green Key is a program of voluntary international environmental certification of hotel business institutions, adopted as one of the activities of the International Federation for environmental education (Foundation for Environmental Education, FEE) in 2003. This program is aimed at reducing the harmful impact on the environment, promoting the implementation of sustainable management of the hotel business, as well as increasing the environmental awareness of guests and staff. Hotels that have passed certification receive an eco-quality mark, the so-called eco-label. Before receiving the eco-quality badge, the hotel must ensure economical water and energy consumption, use of environmentally friendly means intended for cleaning rooms, introduce a system for selective collection of certain types of waste, ensuring their further processing, as well as many other things that require some effort and investment. For example, in order to meet the standards for limiting the flow of water from the shower (no more than 9 l/min) and from the tap (no more than 8 l/min), many hotels have to purchase and install special limiters for water flow. Environmental certification under the Green key program is only carried out when the hotel has already met all the mandatory requirements of the program and is ready for final inspection. After receiving an official document, the hotel must annually confirm its status. As foreign experience shows, the presence of such eco-certification has a positive effect on the hotel's image, increases its popularity in the hotel services market and is a powerful marketing tool. Due to this, tour operators are increasingly choosing such hotels for cooperation, which contributes to mutual benefit. In addition, increasing recognition is given to the system of voluntary environmental certification "Leaf of life". When comparing the "Green key" and "Leaf of life" programs, you can see that they have similar goals, since both programs are aimed at reducing the negative impact on the environment from hotels, at promoting the implementation of sustainable management of the hotel business, as well as at increasing environmental awareness of guests and staff. The main similarity is shown in the four main areas in which hotels implement eco-innovations, namely: waste management; energy consumption; water consumption; use of household chemicals.

Table 3. Competitive advantages and disadvantages of eco-hotels.

| Indicator                      | Financial aspect                                                                 | Client base                                                                 | Marketing                                                                 |
|--------------------------------|---------------------------------------------------------------------------------|-----------------------------------------------------------------------------|--------------------------------------------------------------------------|
| Advantages of the eco hotel    | Savings on resources:                                                          | Attraction of new clients:                                                  | Positive positioning:                                                    |
|                                | - reduction of water consumption;                                               | - due to favorable ecological situation;                                    | - PR and additional opportunity to advertise the hotel;                   |
|                                | - energy saving;                                                                | - by reducing the overall stress on the client's health                     | - creating a reputation for the hotel socially responsible company      |
|                                | - reduction of fuel costs;                                                      |                                                                             |                                                                          |
|                                | - savings on recyclable materials                                               |                                                                             |                                                                          |
| Disadvantages of the eco hotel | Additional expenses. Some environmental innovations involve significant financial investments | Customer churn. Refusal of certain types of services, goods, interior items, materials can negatively affect the demand for services (for example, lack of rooms for smokers, limiting water pressure, etc.) | Anti-advertising. Positioning as an eco-hotel can negatively affect the reputation of the enterprise if the conditions are not actually met eco-certification, or if the real contribution to environmental protection from eco-innovation is less than harm |
LEED (the Leadership in Energy and Environmental Design) is one of the most common hotel standardization programs for reducing negative environmental impacts. This guide is about energy and the most environmentally acceptable design to achieve certain results in 6 sections in the design and construction of buildings and structures.

5 Conclusions

The introduction of the concept of ecological accommodation facilities in the Rostov region, the opening of new, standard, tourist and hotel complexes, mini-hotels, and an increase in the list of additional services provided by them will contribute to the tourism infrastructure of the region and will contribute to its further development.

The concept of an eco-friendly hotel is a well-thought-out system of comfortable living in harmony with the surrounding world. This is a system of a conceptually new look at the development of accommodation facilities, which allows not only to take care of nature, but also to significantly reduce production costs. The main distinctive feature of the eco-hotel is the ideology of the proximity of man and nature and a complex system of measures built on this basis, aimed at reducing the impact of anthropogenic activities on the environment. According to international standards the environmental impact of collective placement facilities is assessed in the following areas:

- air: smell (production and consumption of electricity and heat, cooking, transport used by tourists and staff);
- water: water supply, water consumption (in the kitchen, cleaning, sauna, rooms, tourist services);
- soil and soil water: protection of soil water (when providing tourist services, waste disposal);
- noise: the composition and level of noise (in the recreation area, when providing tourist services);
- visual effects: territory; surrounding area; landscape; buildings; marketing; waste; tourist services.

Currently, "green" technologies are being actively implemented in many sectors of both the foreign and Russian economy, including the hotel business. In this regard, experts believe that being the owner of an eco-hotel is not only modern, but also profitable, because thanks to new technologies, you can significantly reduce the costs of work. In addition, eco-hotels have the opportunity to attract additional customers.

The word "eco-friendly" has become a part of everyday vocabulary all over the world. Eco-friendly goods or products are valued much higher, and hotel services are no exception. All over the world, eco-hotels have become more prestigious and attractive for tourists compared to traditional ones. Positioning the hotel as an eco-hotel gives its owner a number of competitive advantages, among which, first of all, we can note the possibility of using the new status for advertising purposes, creating a favorable microclimate for staff and guests, and increasing the occupancy rates of the room stock.

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