Technical, technological and managerial solutions in ensuring environmental safety

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Abstract. The article examines the target attitudes of Russian consumers to the services of "green" hotels. The authors substantiate that among the consumers of hotel services, the so-called millennials are gradually beginning to prevail, inclined to collect impressions focused on the choice of goods and services in the digital space. In Russia, at present, consumers are less demanding of the hotel business in terms of its "green" focus. They perceive the "green" orientation of hotels as a marketing ploy, and not a concern for them and society. It is concluded that society, as a whole, faces the task of ecological education of young people within the framework of the value paradigm of "green" development, which will subsequently lead to trends in the choice and model of consumer behavior similar to those in the rest of the world.

1. Introduction

The relevance of the study of the value attitudes of Russian consumers of hotel services in "green" hotels is associated with the transformations taking place in the socio-economic landscape. Thus, practically all over the world, civil society and business communities are showing interest in minimizing damage from anthropogenic activities to the environment. All of this correlates with the goals of sustainable development. So, according to the UN targets, 17 sustainable development goals are identified, including, in particular, the creation of sustainable urban agglomerations, the preservation of flora and fauna, the possibility of full-fledged embodiment of value attitudes by individuals within the framework of the chosen career trajectory, rational use of all types of resources [1]. Social attitudes associated with the sustainable development of society, the logical continuation of which is the socially oriented marketing concept and the socio-ethical behavior of business entities, largely determine the behavior of consumers and their value attitudes.

Within the framework of such attitudes, the emphasis is on building a model for the rational use of all types of resources for their preservation and the possibility of the full existence of future generations. In this regard, researchers-experts in this area note the demand for the model of the "green" economy, which almost everywhere replaces the existing and dominant earlier "brown" model, in which the main goal was to increase efficiency and production volumes. [2] Most researchers note the ecological and social orientation of the "green" model and the achievement of great opportunities by members of society through harmonization of relations and respect for the
environment and the interests of other members of society on the part of both business and civil society, in general. [3]

For example, Europe has adopted a course towards green development, which was documented in the Green Pact, which proclaims Europe a “carbon neutral territory by 2050”. [4] Naturally, this orientation is reflected both in the work of enterprises and in the system of social values, transforming the attitude towards consumption. The United States also announced a Green New Deal, which calls for a reduction and, ideally, the elimination of harmful emissions and the widespread introduction of renewable energy sources by 2050. [5]

Russia is also implementing "green" initiatives that correlate with the green projects of the BRICS members. Initiatives are also underway to attract investment in renewable energy production and production energy efficiency programs. [6] The factor that demonstrates the responsible approach that exists in Russia within the framework of the formation of a "green" development model is the annual environmental rating of the constituent entities. [7] Accordingly, such initiatives are reflected in the work of the hotel sector, which raises questions about the study of the willingness and willingness of consumers in Russia to purchase within the green model and use the services of green hotels.

2. Discussion
The value attitudes of consumers in modern society should be considered in a complex, in relation to the situation within the development of territories, the involvement of the population and business in these processes, as well as the basis for taking into account the specificity of the consumers themselves. Thus, a number of domestic researchers note the need to adjust the existing situation in territorial development in terms of following the benchmarks of the "green" model of the economy, speaking, among other things, about the demand for "green" branding of Russian territories. [8] In a number of empirical studies, the authors come to the conclusion about the involvement of government structures and business, as well as the partial willingness of the population to participate in the initiative transformations of the territory of residence and promotion of its "green" brand outside the region in order to attract investment and those wishing to visit it for tourism purposes. [9] Experts attribute no more than 30% of citizens, residents of urban agglomerations to such an active "stratum" of the population, nevertheless, their position can become decisive and the choice of the generatrix for the behavior of other members of society, inductively adopting their behavior model. [10]

Also, according to empirical research, companies that demonstrate a commitment to socially responsible behavior are more successful and more consumers consciously use their services [11], which mediates the demand for business orientation towards adherence to sustainable development goals.

Describing consumer behavior in the current situation, in this case in relation to the segment of hotel services consumption, it should be noted that the experts distinguish a new category of consumers, called generation "Y" or millennials, who are also called "digital consumers" [12]. Within the framework of the well-known theory of generations by W. Strauss, N. Howe, millennials are consumers born in the period from 1982 to 2004, who are not inclined to accumulate, but to “collecting impressions”. [13]. They are focused on getting emotions and impressions from the purchases and services received. [14].

There is evidence that as many as 70% of digital consumers, millennials, are focused on spending their savings in the direction of experience and emotional expectation of experience. They deliberately choose remote work opportunities or free schedules to travel. [15]. Before choosing a location, such consumers tend to check reviews of the place of their upcoming residence on the network and consider various objects. In addition, along with the habit of consuming and organizing consumption in a digital format, they are oriented towards values within the framework of the concept of sustainable development and the green economy model. Domestic researchers also talk about the “green” direction of choice among modern consumers, noting the emergence of such a segment as eco-consumers, who are actively making choices on a digital basis. [16].
In this regard, within the article research problem we needed to identify the attitude of Russians who use hotel services to the formation of a “green” model of the modern economy in order to understand their demand for the services offered by “green” hotels within the framework of collective accommodation facilities for “green” marketing strategies, and the significance of this value factor for customer loyalty management. Since this direction is enjoying some success in a number of foreign countries.

3. Result
To clarify the identified issues, we conducted a marketing research in the form of a survey in google form, in which respondents of different age and gender took part. As a result, we processed the results of a survey of 1,500 respondents who initially specified that during 2019 they used the services of collective accommodation facilities.

Note that gender played a role in the activity of the respondents, for example, the proportion of women and men was 60% and 40%, respectively. In the course of the research, we identified the perception of consumers of the severity of the onset of an environmental catastrophe and the so-called apocalypse due to the irrational use of planetary resources, which is actively discussed in the media. They revealed a willingness to participate in the rational use of the planet's resources and self-restraint, as well as an interest in ecological hotels and an understanding of what they are in terms of consumer expectations.

It should be noted that the respondents aged 15 to 20, who already have their own opinion and consumer experience, showed the greatest activity. However, other age categories are also sufficiently represented in the study. To visualize the age distribution, we will demonstrate it in share terms (Figure 1).

![Figure 1. Share distribution of respondents by age criterion](image)

As part of the discussion on the severity of the perception of a possible ecological disaster, we obtained the following data (Figure 2).
According to the information received, it can be noted that the severity of a possible ecological disaster, as a real problem facing humanity, is estimated by 12% of the respondents, this is 180 people. Also 1050 people believe that this problem exists, but it will become relevant and manifest itself in the distant future, but at present it is more likely to escalate the situation. 450 respondents generally do not consider this issue significant.

According to the criterion of self-restraint readiness and consumption reduction, the following results were obtained (Figure 3).

Accordingly, about 1050 people declared their readiness to self-restrict. However, it seems that such a response is more of a declarative nature, a kind of "declaration of intent" rather than a real readiness. Age differentiation among those who expressed readiness for self-restraint is as follows (Figure 4).
As you can see, those asked from the age category 56-75 are not even declaratively ready to talk about self-restraint (only 8 of them agreed with this position). According to this criterion, the most altruistic are respondents from the age category 15-20 years (490 people).

Let us also consider the answers of the respondents regarding what types of self-restraint they are ready for (whether they are willing to give up personal transport and use public transport to reduce the harmful burden on the environment, whether they agree to completely get away from plastic bags and plastic dishes; is there a willingness abandon natural fabrics and fur to preserve flora and fauna). The obtained results of the answer to this question are shown in Table 1.

Table 1. Differentiation of respondents’ answers according to their readiness for certain types of self-restraint, pers.

| Age of respondents | Refusal from personal vehicles | Refusal from plastic dishes, bags | Refusal of natural fabrics |
|--------------------|--------------------------------|----------------------------------|---------------------------|
| 15-20 years        | 53                             | 328                              | 98                        |
| 21-34 years        | 12                             | 346                              | 6                         |
| 35-55 years        | 5                              | 114                              | 1                         |
| 56-75 years        | 2                              | 82                               | 3                         |

The proportional distribution of the responses received is visualized in Figure 5.
To clarify the position of respondents on the issue of self-restraint in order to save the planet's resources, they were asked about their willingness to give up travel or limit themselves to trips only in Russia, preferably in the nearest regions to their place of permanent localization, since moving over long distances (air transport, railway and other types of transport) leads to the consumption of fuel, energy, etc.

Note that as a result of processing the answers to this question, it turned out that 85% of the respondents are 1275 people, do not agree to refuse travel or restrict them to movements within their country. The age differentiation of the respondents from the remaining 225 people who said that they consider such restrictions on personal travel acceptable as a concentration of travel in their country is visualized in Figure 6.

According to the results obtained, mainly consumers from the 56-75 age group agree on travel restrictions within their country, who, in our opinion, already have significant experience of travel abroad and have received a sufficient number of impressions, respectively, consider the proposed restrictions, if necessary acceptable.
When respondents answered the question about their willingness to pay more for organic products, the following results were obtained (Figure 7).

Figure 7. Differentiation of respondents' answers according to their willingness to pay a certain price premium for environmental friendliness, % (estimates were given by participants for each possible markup from 100%)

The presented data demonstrate the willingness of the majority of consumers to overpay for environmental friendliness in the amount of 5%. Whereas, only about 35% of respondents are ready for more substantial expenses of 20% or more. The distribution of respondents according to their willingness to incur additional costs for environmental friendliness by age group is shown in Table 2.

Table 2. Differentiation of respondents' answers by their willingness to pay a certain amount of price premium by age group, people.

| Age of respondents | The number of those who expressed their readiness to pay the price premium, people |
|--------------------|---------------------------------|
|                    | premium 5% | premium 10% | premium 15% | premium 20% and more |
| 15-20 years        | 304        | 54          | 88          | 6 |
| 21-34 years        | 232        | 184         | 164         | 48 |
| 35-55 years        | 315        | 460         | 370         | 312 |
| 56-75 years        | 147        | 37          | 8           | 2 |

The proportion of answers to this question is visualized in Figure 8.

We believe that the minimum willingness of respondents from the age group 15-20 years old to pay a price premium for environmental friendliness is due to the fact that they have better health and are less concerned about preserving it, since they do not consider this issue relevant for themselves at the present time.
In terms of understanding (opinion) of consumers of what constitutes an ecological hotel / ecological hotel, it turned out that 1350 people out of 1500 considered it a comfortable place for collective recreation, built of high quality materials, located in an ecologically clean natural area (Figure 9).

Regarding the willingness of the respondents to consume healthy food (without salt, sugar and spices), prepared without the addition of oil, and ordinary food that is not dietary, it turned out that only about 15% of respondents were inclined to the first option, and the remaining 85% to the second. Differentiation of respondents' answers by age group is illustrated in Figure 10.
Figure 10. Differentiation of respondents’ answers about the desire to consume dietary and regular food in the context of age groups, % (within the distribution indicated in Figure 4.23 15% and 85%, respectively)

According to the data obtained, representatives of older age groups are inclined to consume dietary food on a regular basis, among those surveyed who expressed such a wish.

Regarding the answer to the question about the desire to consume food on a buffet breakfast or as part of individual service in a restaurant, the opinions of the respondents were divided as follows (Figure 11).

Figure 11. Distribution of opinions of the respondents regarding the preferred food format, %

Differentiation of respondents’ answers by adherence to their preferred diet by age is shown in Figure 12.
Based on the data presented, it can be concluded that “adult” consumers prefer an individual service format, and “young” consumers - the desire for speed and freedom, which is expressed in a preference for the buffet breakfast.

When processing answers to questions about the positive perception of consumers of energy efficiency solutions for hotels in terms of the introduction of "smart lighting" and television, music, etc., working in the presence of guests in the room, it turned out that all respondents have a positive attitude to this innovation. Such a solution can be considered not only as a saving, but also convenient for guests, since they do not need to think about turning off the lights and TV on their own, but can concentrate on their plans and rest.

However, when processing answers to the question about "smart heating" and "smart cooling", on the contrary, almost all respondents, with the exception of 4 people, answered that they did not consider this innovation positive for guests, and they did not agree to living in such conditions. We believe that visitors perceive this decision as the hotel's desire to save their own costs. For guests, the lack of heating and turning it on only when in the room is not comfortable, since the room cannot instantly heat up and get a comfortable temperature. The same conclusion is true for cooling systems.

Similar data were obtained when processing answers regarding water consumption, namely, the readiness / unavailability is put up with a lower temperature of hot water to reduce energy consumption, limiting the duration of a shower, limiting the capacity of flushing water in the toilet. The results of the respondents' received answers are visualized in Figure 13.

Figure 12. Differentiation of respondents' answers according to their adherence to their preferred diet by age, %

![Differentiation of respondents' answers according to their adherence to their preferred diet by age, %](image)

- **individual service (35%)**
- **buffet breakfast (65%)**
Figure 13. Results of respondents' answers regarding the perception of measures to limit water consumption, %

Those who spoke positively about possible temperature restrictions (1%) belonged to the 15-20 age group. All other respondents have a negative attitude to such innovations.

When assessing the results of answers to the question about the readiness to limit the consumption of shower gels and shampoos by 20% of the usual current level of consumption, it turned out that about 55% of respondents are ready for such decisions.

We visualized the distribution of these results by age group in Figure 14.

Figure 14. Distribution of respondents' answers regarding the willingness to save gels and shampoos by 20% of the current consumption level in the context of age groups, %
After processing the results of the answer to the question regarding the readiness for a rarer change of linen and bath accessories in the hotel, the following data were obtained (Figure 15).

![Figure 15. Distribution of respondents' answers regarding readiness for a rare change of linens, %](image)

We also note that when considering the answers of respondents to the question as to whether they consider initiatives aimed at reducing energy consumption and saving resources to be justified in modern conditions or, in their opinion, the desire of hotels to save money and, at the same time, make more money on guests, it turned out, that the overwhelming majority of respondents (95%) have a negative value judgment about the pursuit of their own interests by hotels. To clarify the results obtained, the questions that were answered within the framework of the study were additionally discussed by us in the framework of group interviews with representatives of all age groups (10 people from each group). The people participating in the interview have not previously participated in the survey. They were asked the same questions and discussed their opinions and value judgments. This approach allowed us to clarify the results obtained earlier in a quantitative survey and to clarify the perception of certain issues by consumers.

In general, we note that within the framework of the interviews, the opinions expressed by representatives of age groups coincided with those already voiced during the survey. The accents and correctness of interpretation of the information received were clarified.

Regarding the apocalypse caused by the ecological catastrophe, the interviewees said that the problem, of course, exists, but not in Russia, since we have a huge territory and a rare population. Consequently, what we consider to be a polluted ecological environment by the standards of other states is a clean environment. Therefore, all interviewees believe that at present the struggle for environmental friendliness and cleanliness of the environment is important in educational terms and is formal.

On the issue of readiness to abandon the use of personal auto transport in favor of the public or the use of a bicycle / electric scooter, etc. We received the following comments, from which it follows that the overwhelming majority do not agree to stop using personal vehicles and use only public ones. To use bicycles and electric scooters is ready, mainly, only young people who do not have personal car transport. Regarding the abandonment of plastic bags in favor of paper, cardboard, the interviewees explained that the price of the latter is a limiting factor. The interviews confirmed the conviction of Russian consumers in the desire of hotels to reduce costs by using environmental rhetoric, which, in the opinion of the respondents, is a marketing ploy, and not a sincere concern for consumers and society as a whole.
Based on the studies carried out, it can be concluded that at present the value beliefs of Russian consumers regarding the attitudes of the “green” model of the economy and the perception of the “green” offer from representatives of the hotel industry differ from those of, for example, Europeans.

Due to the presence of a vast territory, Russian citizens do not perceive the possibility of an environmental disaster as something serious and urgent here and now. By ecological hotels, they mean comfortable places for collective recreation, located in ecologically clean areas, where they can enjoy quality products and services. Only a limited number of young people have excellent perception. The overwhelming majority of consumers are not ready for self-restraint in terms of reducing water use, rarely changing clothes, and so on, but if they are ready to go for this, but not because of a desire to reduce the load on the landscape, but to receive significant discounts and personal savings.

The majority of consumers believe that innovative systems for the introduction of elements of green management in hotels, aimed at saving resources, are necessary to reduce costs, and are not client-oriented solutions.

Accordingly, in the current period it is advisable for hotels that are implementing green marketing strategies in Russia to position their services as high-quality, premium, focused on the segment of eco-hedonists who want to receive better quality services. This implies a high cost of services that meets the high expectations of guests.

The majority of consumers, who are not striving for a premium vacation, but who rationally approach their own expenses for recreation and tourism, are ready to save resources when staying at a hotel in the event that they are provided with significant discounts. The implementation of a flexible pricing policy for consumers involved in such programs, in general, contributes to the formation in them (gradually) of a change in value perception. In the minds of consumers, the following attitude is formed: they do not just save their budget, but do it, deliberately limiting consumption in order to reduce the burden on the environment within the framework of public interests. Thus, they themselves perceive themselves not as wanting to save money, but as caring about others. The same opinion about them is gradually formed among other citizens. This gradually transforms values.

It is also possible to offer a young audience who positively perceives new items and is "drawn" into global values, living in eco-boutiques that promote the ideology of rational consumption and perception of their own value without interrupting the "green" vector of development of modern society. However, the development of this area involves large-scale educational and educational work within the framework of environmental education, the systematic implementation of which in society will allow transforming the value model of individuals, which will allow building programs for attracting consumers and loyalty programs based on adherence to their "green" guidelines.

4. Conclusion

In a society focused on sustainable development, building a green model of the economy, where social and environmental values are priorities, the hotel business is also focused on implementing green marketing strategies and offering green hotel services.

The so-called millennials, who tend to collect impressions focused on the choice of goods and services in the digital space, are gradually starting to prevail among hotel consumers. They are called digital consumers. At the same time, in developed countries they are focused on the goals of "green" development and make similar demands on businesses.

In Russia, in the current situation, consumers perceive the reality of environmental threats differently, and are less demanding of the hotel business in terms of its “green” focus. They perceive the "green" orientation of hotels as a marketing ploy, and not as a concern for them and society. This circumstance suggests the need to position the services of ecological hotels as premium; offering the services of energy efficient hotels as providing discounts to guests, which will gradually transform their consciousness. Society, as a whole, is faced with the task of ecological education of young people within the framework of the value paradigm of "green" development, which will subsequently lead to trends in the choice and model of consumer behavior similar to those in the rest of the world.
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