

Shaping responsible consumption patterns

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Abstract. The article provides analysis of sustainable consumption concepts in order to identify the existing and emerging patterns of responsible consumption within the framework of the Sustainable Development Goals. Based on the analysis of scientific publications, patterns of responsible consumption were listed and then were used for an online survey of 600 young active consumers about their understanding of and attitude to responsible consumption. The main driver of responsible consumption is saving, limiting unnecessary spending. Among the forms of responsible consumption, those associated with saving of resources and the limitation of the number of purchased goods also prevail. Consumers are not ready to pay more for responsible consumption – the increase in costs is the main barrier. Consumers are willing to exercise responsible consumption if it helps reduce costs by consuming fewer resources and goods and make purchases at an affordable price.

1 Introduction

The concept of sustainable development is reflected in the UN strategy documents: The Future We Want (2012); “The 2030 Agenda for Sustainable Development” (2015); the Paris climate agreement (2015), which presents the conceptual priorities and specific goals facing countries and peoples. The Sustainable Development Goals (SDGs) reflect the ideology of the concept and combine social, economic and environmental priorities and specific tools for implementation. One of the UN Sustainable Development Goals is SDG#12, ‘Ensure Transition to Sustainable Consumption and Production Patterns’. Despite the changes in the geopolitical environment, the economic downturn due to the consequences of the pandemic and anti-Russian sanctions, the general direction towards sustainable production and consumption not only persists, but is seen as a priority both globally and in Russia.

The concept of sustainable/responsible production has received sufficient attention in both academic literature and business practice. The research and practice of implementing the lean production concept with TPM (Total Productive Maintenance) and ‘efficient workplace’ systems, ‘Just-in-Time’, ‘Kanban’, etc., allow the creation of quality goods and services while reducing the burden on the environment [1].

The concept of responsible consumption is less widely represented in the scientific literature and has numerous interpretations of both the concept of responsible consumption itself and its patterns. The purpose of this article is to analyze and summarize the available scientific and methodological approaches to the concept of responsible consumption and

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determine the main patterns of responsible consumption behavior on its basis. The scientific novelty and theoretical significance of the proposed approach consists in the clear positioning of the concept of responsible consumption among the related concepts of sustainable, ethical, environmental, green consumption and anti-consumption; identifying the most common patterns and forms of responsible consumption among consumers and barriers to such consumer behavior. The practical relevance of the results of the study consists in describing measures to be taken to strengthen more sustainable patterns of consumer behaviour.

2 Literature review

The understanding of sustainable production and consumption patterns is ambiguous in academic sources. If sustainable production is understood as a transition to an economic structure that develops not only sectors in which the country has significant natural, geographical or other advantages, but also a broader set of modern, innovative goods and services sectors that are resilient to external shocks, price fluctuations, business cycle phases, shifts in the structure of global demand for goods and services [2], the situation with the interpretation of sustainable consumption is more complex. Terms and concepts such as responsible consumption, sustainable consumption, conscious consumption, rational consumption, anti-consumption, overconsumption can be found in publications on this sustainable development goal [3,4].

To understand the hierarchy of these concepts, their differences and interrelationship, we will assume that they are all related to the theory of consumer values, which underlies and determines the behavioural responses of consumers. The theory of consumer values was formulated by Jagdish Sheth in his works in the early 1990s [5].

His theory provides an answer to the question of why consumers do or do not buy, use or do not use certain products, prefer some products and refuse others. Sheth identified 5 groups of consumer values:

Functional – the perceived utility of specific functions, utilitarian or physical characteristics of a product. This type of value is based on Marshall's [6] and Stigler's notion of economic utility [7];

Social – perceived utility from associations with a particular social group(s). This type of value was explored by Veblen in his theory of ostensible consumption [8], by Hyman in his concept of reference groups [9] and by Rogers in his concept of opinion leaders and diffusion of innovation [10,11];

Emotional – perceived utility from the arousal of certain feelings or emotional states. The influence of irrational and unconscious motives on consumer behaviour has been analysed by Dichter [12] and the researchers of "atmospherics" in marketing Kotler, Holbrooke, Park and Jan [13];

Epistemic or cognitive – the perceived usefulness of stimulating curiosity, a sense of novelty. The influence of novelty on consumer choice has been studied by Sheth [14], Hirschman [15,16];

Situational or contingent – perceived utility in the prevailing conditions or situations that reinforce functional or social values (e.g. seasonality factor, factor of important life events or urgency and urgency). The influence of such factors has been investigated by Sheth and Howard [14], Belk [17].

Based on Seth's theory of consumer values, sustainable consumption researchers form their approaches to defining concepts and highlighting the values that motivate consumers. A common approach is to define sustainable consumption as consumption meeting the basic needs of the present generation, without compromising the capabilities of future generations, not causing irreversible damage to the environment, loss of function in natural systems,

increasing resource efficiency, improving quality of life and avoiding consumerism and modern overconsumption [4].

Conscious consumption is often understood as attention to the problem, involvement in it out of a sense of concern for oneself, society and nature, which is expressed in moderate consumption, both in situations of personal and public consumption behavior [18,19]. At the same time among researchers there is no clear distinction between the concepts of conscious, responsible and sustainable consumption; often these terms are used as synonyms. In order to understand the connection between the real actions and behaviors of consumers based on their awareness of sustainable development goals and to use this information to develop business strategies it is necessary to analyze the concepts related to sustainable behavior and to identify already existing and emerging patterns of behavior.

3 Materials and methods of research

A pattern is a set of behaviors or activities in which a pattern can be observed. Generalizing and analyzing patterns of behavior helps to form a model by establishing the structure and composition of the elements and the relationships between them. As consumers may have different sets of responsibility criteria, different patterns of responsible consumption can be observed, and by analyzing and summarizing them, the most popular or frequently used patterns can be identified that have beneficial or harmful consequences for society and its sustainable development. A keyword search of scientific publications in the bibliometric systems ScienceDirect and e-library for 2018-2022 was used to identify such patterns. The research consisted of three phases. The first stage was the collection of publications, the second stage was the classification of publications, and the third stage was the analysis and interpretation of the results. The inclusion/exclusion criteria for the publications were the keywords used in the titles, abstracts and texts of the publications (Table 1).

Table 1. Keyword of the research

Sustainable development	Consumer behavior
Sustainable consumption	Customer behavior
Responsible consumption	Consumer decision-making
Ecological consumption	Environmental behavior
Conscious consumption	Consumer judgement
Ethical consumption	Consumers
Sensible consumption	Consumerism
Material consumption	Socially responsible behavior

The selected publications were first analyzed for their relevance to both sustainable development and consumer behavior. The 560 publications thus selected were analyzed by abstract; studies outside the scope of the topic were removed; the remaining 196 articles formed the main base for analysis, from which 119 articles were selected that not only defined responsible consumption, but also described patterns of consumer behavior and decision-making or shopping patterns.

Based on the consumer behavior patterns obtained from the scientific publications studied, an online survey was conducted to determine the involvement of Russian consumers in responsible consumption and to identify the factors influencing this process. The survey sample consisted of 600 respondents, 80% of whom were in the 18-35 age group. The survey questionnaire included questions to find out what exactly the respondents understood by responsible consumption, in what patterns of behavior they believed this behavior

manifested, and to what extent they themselves adhered to such patterns of behavior in their lives.

4 Results and discussion

The distribution of selected publications in Russian and English by year is shown in Figure 1.

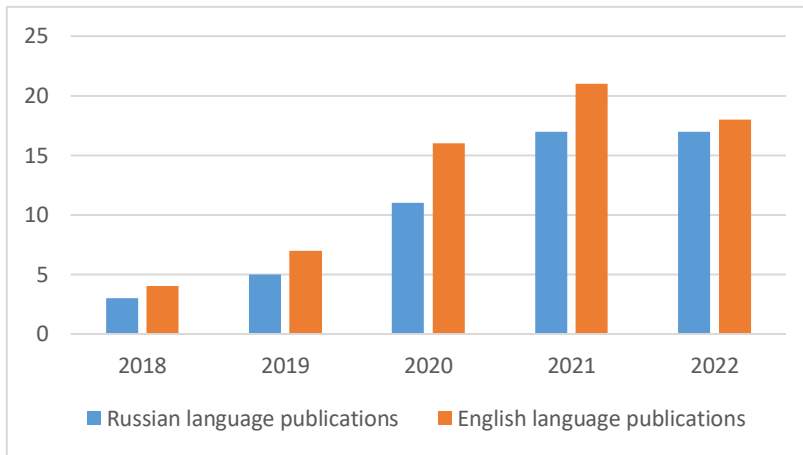


Fig. 1. Publications distribution by years

A large proportion of the publications reviewed deal with responsible food consumption and fashion products, these two topics accounting for almost 40% of all publications. The articles analyze concepts such as fast and slow fashion, organic food consumption, minimizing food waste through informed consumer behavior. Another 17% of the publications focus on the impact of the Covid-19 pandemic and related restrictive measures on sustainable consumer behavior (Fig. 2).

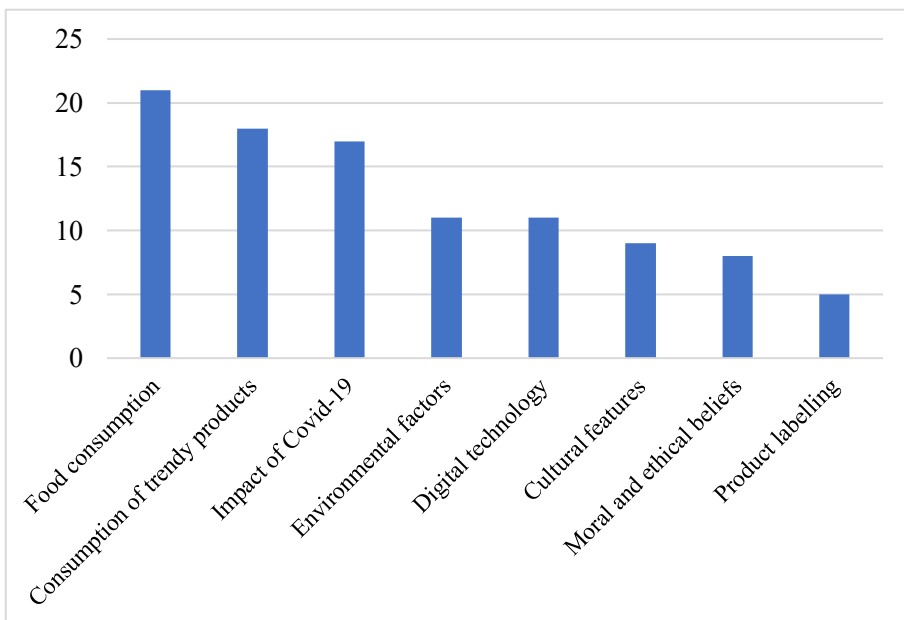


Fig. 2. Publications topics

Figure 2 shows that among the frequently mentioned topics related to sustainable consumption, there were also environmental factors influencing consumer behavior and purchasing decisions, the influence of digital technology and e-commerce, consumers' moral and ethical beliefs, the influence of national cultural values, and product eco-labelling.

Among the recurring patterns of consumer behavior, an analysis of the publications revealed the following patterns that can be attributed to responsible consumer behavior:

- Economical use of available resources (water, electricity),
- limiting the quantity of purchased products,
- participation in product recycling systems,
- participation in product sharing systems,
- sorting and disposal of waste,
- the choice of products on the basis of their environmental impact (on the basis of labelling or product information)
- avoiding the use of products due to their negative impact on the environment.

Sustainable consumption thus includes 3 basic concepts: responsible consumption, conscious consumption and anti-consumption. Responsible consumption covers social aspects (e.g. maximizing benefits to society and social justice), environmental aspects (e.g. minimizing resource use, encouraging conservation and reducing environmental degradation) and ethical aspects of behavior (e.g. opposing activities that pollute and destroy the economic, natural, and social environment). Anti-consumption refers to aversion to any product or behavior, avoidance (abstention) from use and total rejection of something previously consumed. Anti-consumption may also include recycling or disposing of those products that cannot be completely discarded.

Summarizing all these options for defining sustainable consumption behavior, we can present a model for responsible consumption as follows (Fig. 3).

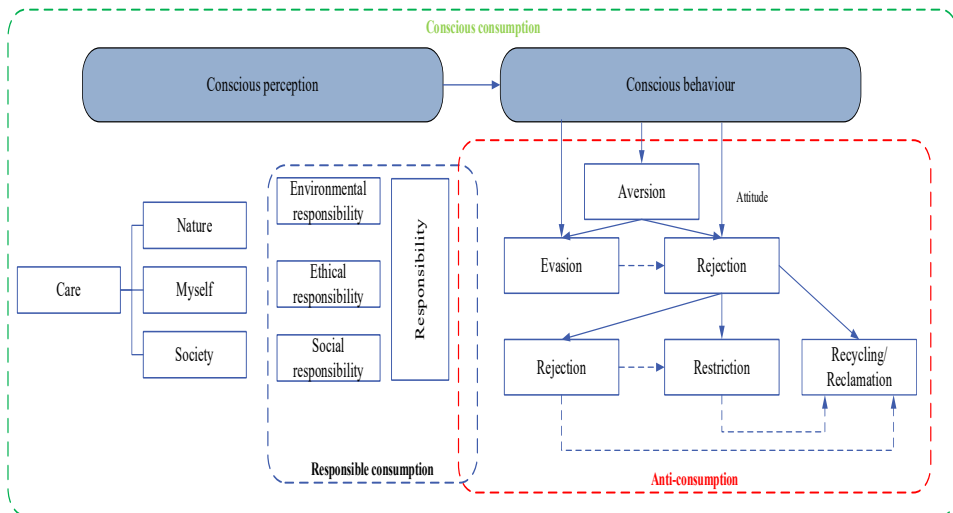


Fig. 3. Responsible consumption model

The most general and broadest notion is conscious consumption, where, as a result of awareness of the problem at hand and the need to use more sustainable models, consumers, out of concern for themselves, nature or society, assume environmental, ethical or social responsibility and either refuse certain products, limit their consumption or, if this is not possible, seek to dispose of the waste and send it for recycling. Responsible consumption can thus be thought of as part of a conscious attitude towards consumer behavior, a link between the conscious perception of the problem at hand and the conscious behavior of the consumer.

The relationship of related concepts related to responsible consumption is illustrated in Figure 4, where it includes such overlapping areas as green or green consumption, ethical consumption and various anti-consumption options, united by sustainable development values and related to a greater or lesser extent to a sustainable consumption behavior model.

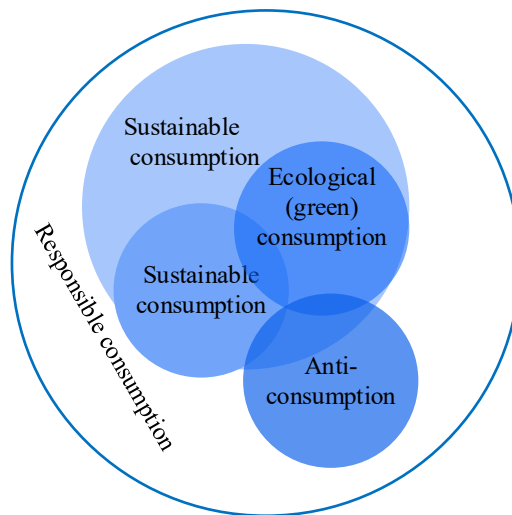


Fig. 4. Responsible consumption and related concepts

Sustainable consumption means consumption with the possibility of preserving resources and the environment as much as possible. Sustainable consumption has much in common with ecological or green consumption, complementing the latter with frugality, i.e. a sensible attitude towards purchases and expenditures. Ethical consumption or ethical consumerism is essentially similar to the label of fair trade - consumers prefer ethically produced products, support small producers, artisans, boycott products of producers who use child labor, test on animals or harm the environment. Rejection of certain products due to their unethical and unsustainable nature refers to anti-consumption, where consumers deliberately and consciously exclude certain products/brands from their consumption. If total anti-consumption is not possible, they may limit their consumption of certain products.

Responsible consumption refers to the responsibility of consumers for the environmental impacts of their choices and the impact of their choices on social, economic consequences and their own health. Responsible consumption is a broad concept that has not only an environmental dimension, but also economic, social and even health aspects. Consumers consume responsibly, considering those aspects and characteristics of consumption that are important to them and have a beneficial impact on them personally and on society as a whole. Some responsible consumers pay attention to the ecological side of consumption, trying to choose seasonal, organic and ecological products. Others pay attention to the economic impact of their choices, choosing locally produced products. There are also consumers who choose products according to the impact they have on their health.

Responsible consumption can thus be defined as consumption that meets at least one or more of the following criteria presented in the table 2.

Table 2. Responsible consumption criteria

Criteria for responsible consumption	Content criteria for responsible consumption
Consumption of environmentally friendly products that have a minimal negative impact on the environment	<ul style="list-style-type: none"> – certified products from producers with a responsible attitude towards the environment and biodiversity; – products produced with a low carbon footprint; – organic products; – outputs of the production that does not harm the quality of soil, water and air and prevents the pollution and depletion of natural resources
Consumption of products that respect social norms and have a favourable impact on society	<ul style="list-style-type: none"> – products manufactured under labour conditions that do not use forced child labour and comply with international conventions; – products manufactured in compliance with ethical standards; – products manufactured in cooperation with local communities, respecting their way of life and commercial profit (e.g. under the concept of fair trade)
Consumption of 'healthy' products produced in a sanitary manner	<ul style="list-style-type: none"> – products without toxic and hazardous ingredients; – products manufactured without the use of harmful chemical fertilisers; – products manufactured in accordance with hygienic standards; – foods that meet healthy eating standards; – foods produced according to hygienic standards
The consumption of products with a positive impact on the local economy.	<ul style="list-style-type: none"> – locally produced products; – products manufactured by enterprises that create more jobs and contribute to the economic and social inclusion of workers
Consumption of ethically or morally produced products	<ul style="list-style-type: none"> – Respect for animal welfare rights and regulations; – Respect for justice and individual liberty; – Respect for other principles and public interests

The essence of responsible consumption is to be aware of the impact of consumption on different aspects of sustainable development and to strive to act so that this impact is more positive. It is not possible to develop a global approach to responsible consumption, but it is possible to develop specific approaches or strategies in different areas of consumption based on the study of consumption patterns and behaviors.

The patterns of responsible behavior derived from the analysis of scientific publications were used to conduct an online consumer survey. A total of 600 respondents took part in the survey and their socio-demographic indicators are shown in Fig. 5.

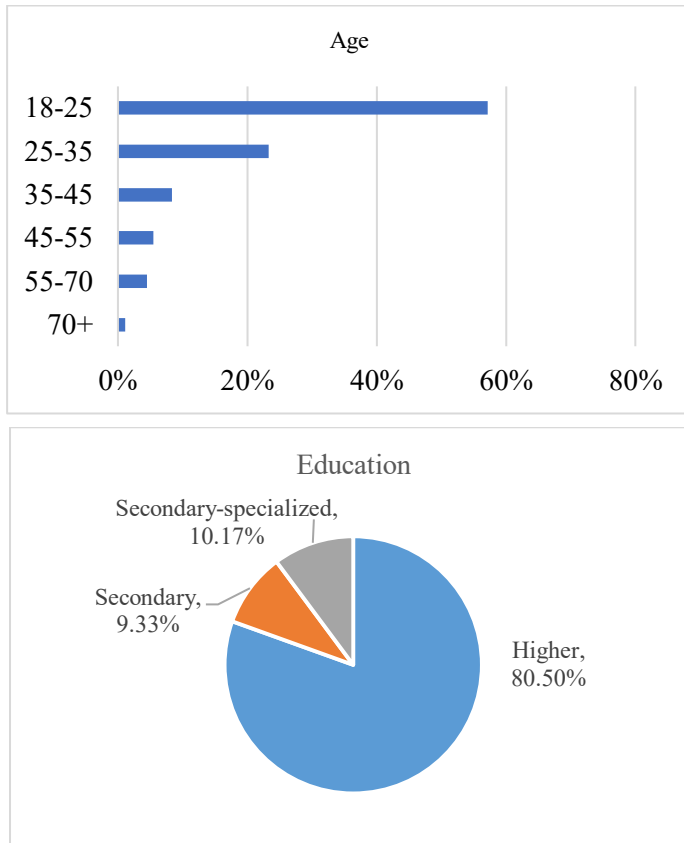
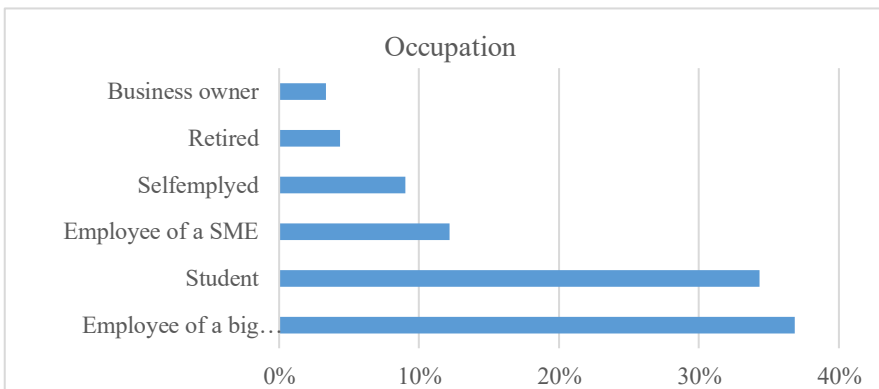


Fig. 5. Socio-demographics of the respondents

Respondents were basically employed or students with the average income level. (Fig. 6).



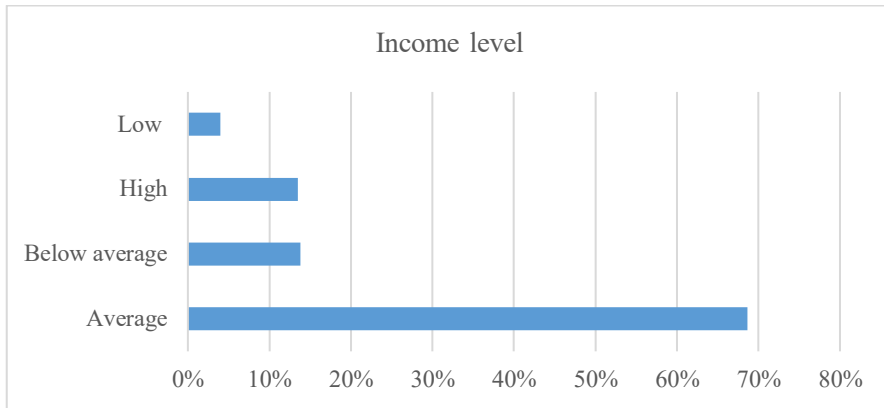


Fig. 6. Respondents' occupation and income

Young people are an active, dynamic group of consumers. They have an inherent desire to learn and try new products and services, to change their lives and directions with their help. The tendency to choose environmentally friendly products can be seen among the younger generation, who demonstrate a conscious choice of goods [20]. The consumer behavior of young active consumers is characterized by the demand for the manufacturer's image and reputation, its social activity. Having such socially significant characteristics as susceptibility to innovation, maximalism, propensity to imitation, consumers choose their own styles and consumption patterns and actively participate in new consumer practices [21]. With digitalization and the spread of sharing services, it is the young e-consumers who use collaborative consumption models and services of digital platforms most actively [22,23]. Based on all of the above, it can be assumed that the consumers in the study sample are more likely to engage in responsible consumption than the average consumer due to their young age and high level of education. Thus, the results of the study can be used as a benchmark for the development of responsible consumption patterns in the future.

Most respondents understand responsible consumption as behavior that saves resources, especially financial resources, and avoids unnecessary spending (Fig. 7).

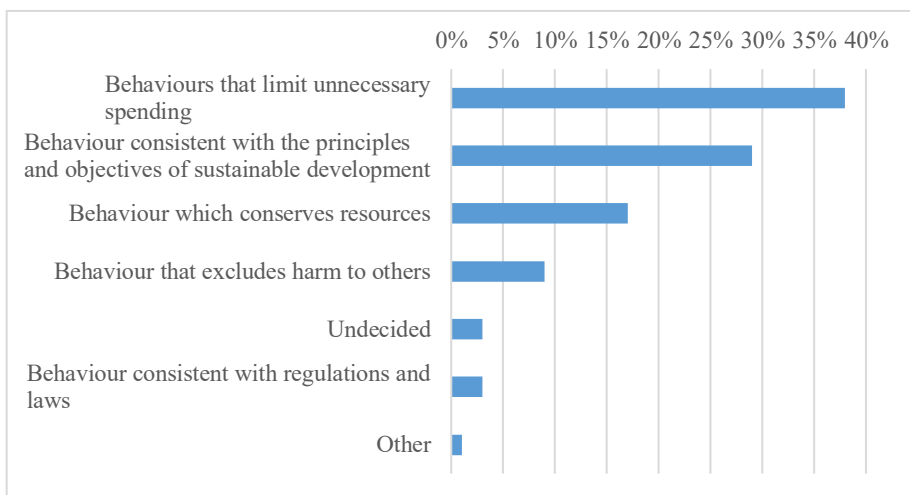


Fig. 7. Respondents' understanding of responsible consumption.

Responsible consumption of respondents, as a rule, takes forms related to saving resources used (electricity, water) and reuse of unnecessary things (Fig. 8).

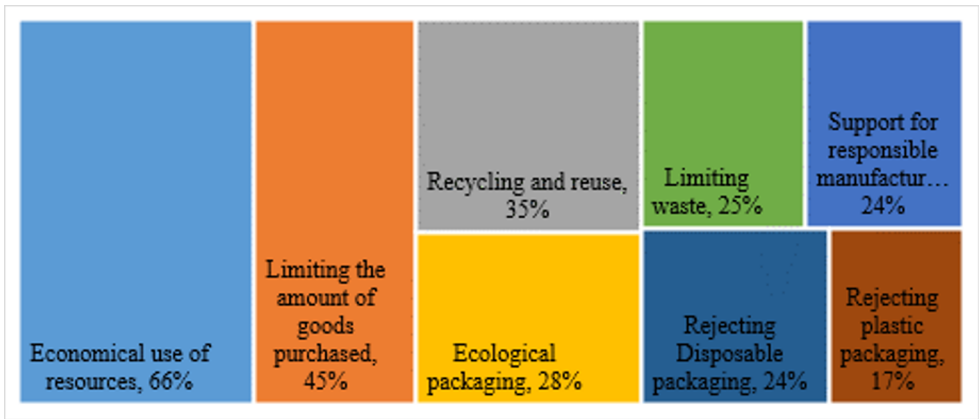


Fig. 8. Patterns of responsible consumption

Among the barriers to responsible consumption, respondents most frequently mentioned economic factors. They are also not ready to make additional efforts to show more responsible consumption (Fig. 9).

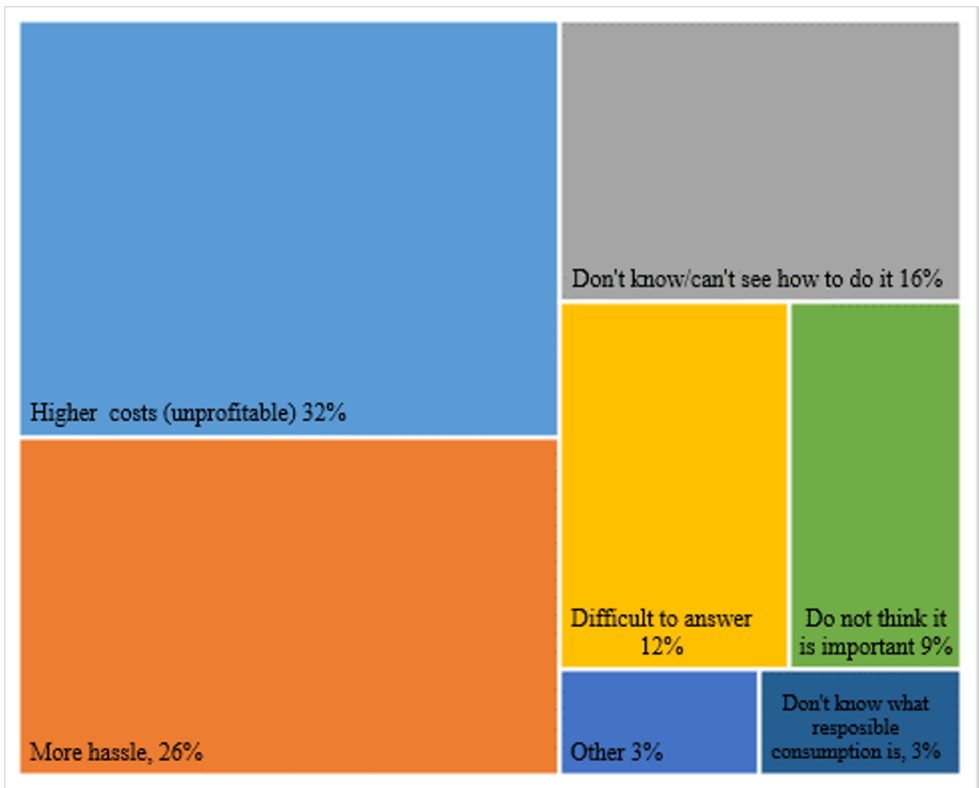


Fig. 9. Barriers of responsible consumption

Consumers tend to follow the example of other consumers, especially friends and acquaintances. Promoting responsible consumption by producers (advertising, packaging) and information in the media has less influence on actual behavior than the example of other consumers (Fig. 10).

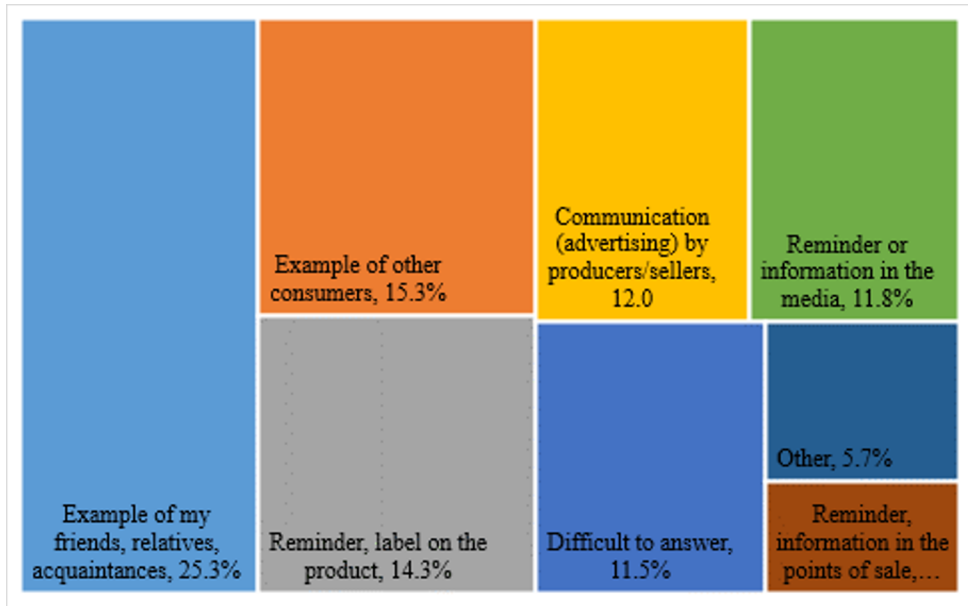


Fig. 10. Responsible consumption stimuli

The main driver of responsible consumption is saving - 38% understand responsible consumption as the behavior that limits thoughtless and unnecessary purchases and spending. Responsible consumption patterns are also dominated by those related to saving electricity (82%) and water (54%) and limiting the amount of goods purchased (45%). Consumers are not willing to pay more for responsible consumption - rising costs are the main barrier (32%) to it. From this we can conclude that consumers are willing to be responsible under two conditions (1) it will help to reduce costs by consuming fewer resources and goods and (2) at the same time to make purchases at an affordable price.

Forms and patterns of responsible consumption that are not directly linked to economic factors (reuse of goods, redistribution of surplus, sorting of waste, use of environmentally friendly packaging, etc.) are less popular, but there is potential for raising awareness about them among consumers. The main incentive for responsible consumption is the example of other consumers and friends - i.e. the main focus should be on communication in social networks, word of mouth, etc.

According to sociological research [24,25], a very noticeable part of Russians (30%) have ever participated in some kind of socially responsible consumption practices: 17%, when buying a certain product, have taken into account, along with its price and quality, the manufacturers' compliance with ethical standards (respect for the environment, observance of workers' rights, refusal to test cosmetics on animals); 11% more or less regularly reject products because the manufacturers violate some kind of ethical standards (causing severe harm to the environment). In other words, new consumer practices are expanding the space for responsible consumption in Russia and could potentially catalyze its development.

5 Conclusions

Economic policy regulates people's activities for creation of material goods and services as a condition for growth of people's welfare, while social policy is aimed at relationships between people in consumption of material goods and services and improvement of living conditions of all members of society based on the principle of social justice. The formation of incentives for responsible consumption and the development of appropriate infrastructure for socially responsible consumer behavior are among the functions and tasks of social policy.

Ensuring progress towards sustainable development presupposes the activity of citizens. Consumers' understanding of the essence, goals and forms of responsible consumption and the readiness of the population to follow the patterns of sustainable consumption are determined both by their interest and by the economic capabilities of sustainable consumption patterns. The society is forming a demand for new products and services, convenient infrastructure providing the implementation of sustainable consumption patterns, development indicators reflecting the price of economic success for nature and man and ensuring its minimization.

The number of consumers willing to implement responsible consumption models in Russia is growing. This is evidenced by the active criticism of the authorities for the lack or imperfection of accessible and convenient infrastructure that allows to actually see the results of the work on the formation of responsible consumption and production.

Studies have shown an increase in the popularity of patterns of responsible behavior associated with economic factors, limiting the amount of purchased products and reckless spending, saving the resources consumed. Patterns that are not directly related to economic factors are less common, but not so much due to consumers' lack of understanding of their appropriateness, but rather due to consumers' lack of awareness of such opportunities.

The conducted studies were aimed at identifying the attitudes of young active consumers to the concept of responsible consumption, the use of various forms of such behavior, individual areas of responsible consumption have not been investigated in detail. The direction for further research could be a comparison of consumer behavior patterns before and after social programs to promote responsible consumption and further development of the relevant infrastructure.

References

1. J. Womack, D. Jones, *Lean Thinking - Banish Waste and Create Wealth in your Corporation*, J. of Operations Research Society, **48**, 1148 (1997)
<https://doi.org/10.1057/palgrave.jors.2600967>
2. S. N. Bobyleva, L. M. Grigor'eva, *Analytical report on Russian Federation Development in 2016*, Academic centre under the Russian Government, 298 (2016)
3. R. Duarte, S. Miranda-Buetas, C. Sarasa, *Household consumption patterns and income inequality in EU countries: Scenario analysis for a fair transition towards low-carbon economies*, Energy Economics, **104**, 105614 (2021)
<https://doi.org/10.1016/j.eneco.2021.105614>
4. M. L. Weng, *Inside the sustainable consumption theoretical toolbox: Critical concepts for sustainability, consumption, and marketing*, J. of Business Research, **78**, 69–80 (2017)
5. J. N. Sheth , B. Mittal, B. Newman, *Customer Behavior: Consumer Behavior and Beyond*, 1st Edition by South-Western College Publishing (1998) ISBN-10: 003098016X

6. A. Marshall, Principles of Economic Science. Handbook, 100 (Moscow, Progress Publishing House, 2005)
7. J. J. Spengler, Review of Production and Distribution Theories, by G. J. Stigler Southern Economic J. **8(1)**, 109–110 (1941) <https://doi.org/10.2307/1052419>
8. T. Veblen, Theory of the leisure class (Progress, Moscow 1984)
9. H. Hyman, E. Singer, Readings in reference group theory and research (London Collier- Macmillan, 1968)
10. H. Hyman, The psychology of status (New York, Columbia University, 1942)
11. E. M. Rogers, Diffusion of innovations (New York, Free Press, 1962)
12. E. Dichter, Handbook of Consumer Motivations: the Psychology of the World of Objects, 486 (McGraw-Hill, 1964)
13. P. Kotler, Atmospherics as a marketing tool, J. of Retail **49**, 48–64 (1973)
14. J. N. Sheth, B. I. Newman, B. L. Gross, Why we buy what we buy: A theory of consumption values, J. of Business Research, **22(2)**, 159-170 (1991) ISSN 0148-2963
15. E. C. Hirschman, Experience Seeking: A Subjective Perspective of consumption, J. of Business Research, **12(1)**, 115 – 13 (1984)
16. E. C. Hirschman, M. B. Holbrook Hedonic Consumption: Emerging Concepts, Methods and Propositions, Journal of Marketing, **46(3)**, 92-101(1982)
17. R. W. Belk, Situational Variables and Consumer Behavior, Journal of Consumer Research, 2(3), 157–164 (1975)
18. G. Pappalardo, S. Cerroni, R. M. Jr. Nayga, W. Yang, Impact of COVID-19 on Household Food Waste: The Case of Italy, Frontiers in Nutrition, **7**, 585090 (2020) doi:10.3389/fnut.2020.585090
19. I. O. Pappas, P. E. Kourouthanassis, M. N. Giannakos, V. Chrissikopoulos, Shiny happy people buying: the role of emotions on personalized e-shopping, Electronic Markets, **24(3)**, 193–206 (2014)
20. L. N. Safiullin, A. I. Sahbieva, I. A. Zarifova, Trends of consumer behaviour of the youth as a new formation of the economy of the future, Russian Economic Bulletin, **5(1)**, 314-318 (2022)
21. R. R. Sidorchuk, I. I. Skorobogatyh, A. A. Meshkov, B. V. Musatov, D. M. Efimova, T. A. Tul'taev, D. R. Evseeva, Value orientation and consumer preferences of the youth public (Moscow, 2017)
22. I. I. Skorobogatyh, Zh. B. Musatova, Trends in the behaviour of consumers in Russia in the book Digital transformation of economy: theory and practice. Proceedings of the scientific and practical conference with international participation, Habarovsk, 165-173 (2021)
23. N. Yu. Tishchenko, O. E. Tishchenko, V. A. Rebyazina, Yu. A. Slobodchuk, Factors of consumer behaviour in the sphere of collaborative consumption economy in Russia using the example of Airbnb, Vestnik, Ekonomika, **2**, 43–63 (2019)
24. M. A. SHabanova, New consumer practices under digitalization of the civil society: theory and methodology, article 1, Sociological research, **11**, 16-26 (2020) DOI: 10.31857/S013216250010204-7
25. M. A. SHabanova, Separate collection of household waste in Russia: level, factors and inhabitants participation, World of Russia 28(3), 88–112 (2019) doi:10.17323/1811-038X-2019-28-3-88-112