
Formation of Bounded Consumers' Rationality Based on Micro-Segmentation

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Abstract:

The relevance of the study is due to the need to optimize the procedures for identifying the target audience online. In this regard, the article is aimed at identifying the benefits of finding the target audience for the subsequent promotion of the product through streaming micro-segmentation of network users.

Orientation of the marketing company at the potential consumer significantly increases the cost effectiveness. However, society responds to this by forming a limited rationality in the behavioral aspect.

This phenomenon is considered on the one hand from the point of view of the consumer and on the other hand from the position of the supplier of goods and services. Using this method, paternalism on the part of the state is possible, but the question of intervention and control remains more philosophical.

The leading method is the method of abstracting that allowed comparing the developments in the methods of market segmentation and adapting them to modern realities.

The article compares the basic concepts of classical economics and modern methods of identifying the target audience. The materials of the article are of practical importance for medium and large enterprises actively working in sales and consumer search.

Keywords: *Micro-Segmentation of Network Users, Limited Rationality, Paternalism, Marketing Technologies, Society Adaptation.*

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1. Introduction

In modern conditions of rapidly developing economy, mechanisms and decision-making processes are important aspects of not only the effectiveness of the organization's management, but also the activities of an individual entity. Moreover, human behavior usually contains a significant rational component. As a fundamental premise, we use the thesis of the possibility to adapt the means to the goals, to act in accordance with the objectives and circumstances, to choose the best of the alternatives. This provision is adequate in first-person reasoning. The subjective perception of reality changes depending on what surrounds it. Semantic field forms the rational for the particular selection of the subject.

The relevance of the study is explained by the need to regulate the free market. The impact on the levels of supply and demand through modern methods of identifying the target audience and aimed at product promotion is currently discussed at many information resources. The humanity of the question about the desire to purchase goods, the compulsion to make choice, the study of the society for the presence of communities with certain desires and hobbies and the formation of the conditions for these societies to consume – all of this is a phenomenon of limited rationality in the modern world.

2. Literature Review

Today there are quite a lot of schools that describe the decision-making process in various areas of the economy. One of the most important among them is behavioral economic theory. This theory tries to investigate the real behavior of economic entities and seeks to build a generalized model of decision-making. Thus, the model of the Nobel laureate Richard Thaler includes behavioral finance parameters which describe the price response to information, including three phases: missing reaction – adaptation – hyperreaction that create trends in price movements (Svetunkov and Litvinov, 2016; Sharashkina 2016).

One of the characteristic features of hyperreaction is that the average profit following the announcement of good news is lower than that following the announcement of bad news. In other words, hyperreaction occurs when the market reacts to the news too intensively, thus requiring adaptation in the opposite direction. As a result, at one stage the securities will be overrated, at the next stage, they may be underestimated taking into account the assessment by the subjective consciousness of market participants. Along with this theory, technologies of changing the possibilities of choice, both physical and psychological, are developing. The model of limited rationality is formed by the internal market through a number of factors, such as the model of behavior imposed by the semantic field, the information provided at the peak of the market failure due to information asymmetry, etc.

It is significant for our research that in the earlier models the formation of decision-making based on needs, and not on the basis of needs and external influence, due to which additional needs are formed was considered. This phenomenon is called limited rationality, the code is executed subjectively by rational scenario which in terms of objective reasons is not always adequate. The study touches upon a number of fundamental economic provisions on the necessary intervention and the possible degree of intervention of the state into the economy to regulate the situation at the market. The theoretical significance of the study is also due to the interest of the state bodies of the Russian Federation in the welfare of their people.

3. Methodology and Methods

A marginal unit is a unit whose small addition or subtraction is considered. In the language of marginals, the marginal unit of any factor of production, of any stock of goods and of any output of goods, is the same additional unit. In economics, the term "margin" always means something additional. Thus, the term "marginal utility" of a good is the additional utility derived from the consumption of an additional unit of a good, or the term "marginal value" is the additional cost of production of one additional unit of good.

In economics, we refer to "marginal utility", "marginal cost", "marginal revenue", "marginal profit", "marginal product", etc. It should be noted that a marginal unit is not necessarily the last unit, although sometimes it may seem so. Thus, in any stock of identical goods or any unit of measurement, the concept of margin has a reference to the addition or subtraction of any unit of measurement without taking into account a specific unit of measurement (Maloletko and Maloletko, 2016).

In perfect competition theory, a marginal firm is one that would stop producing a product if the market price falls. According to the firm's theory, marginal sellers are those who are simply willing to sell their goods at the prevailing price and who would refuse to sell anything at a lower price (Danilina *et al.*, 2017; Vinogradova *et al.*, 2017). The marginal concept plays a special role in the price theory. It is well known that the marginal utility and marginal cost of goods jointly determine its value. But, this is not a correct statement. Fields never determine value; rather, margins, as well as values, are determined by the interaction of supply and demand forces. In cases where the required quantity and quantity of the delivered goods become equal, both the value and the margin are determined at this point of equality.

Thus, according to Marshall "*the marginal use and costs do not regulate the value but regulate the overall relationship of supply and demand together with the cost*" (Marshall, 2017). This means that neither the marginal utility nor the marginal cost of production regulate the value of goods, which is determined by the general relations of supply and demand (Kolesnikov and Darmilova, 2009; Seif and Naderi Beni, 2018). These are total demand and total supply that govern both margin and cost. In fact, the margin is the point where the value of the goods is determined.

However, this does not mean that the margin unit does not affect the value. Margin units, like any other units, form a part of the total supply and therefore have a certain impact on value (Volkov *et al.*, 2017). Because of this, we have to go through the fields to study the actions of those forces that determine the value of things.

Thorstein Veblen was a sociologist not less than an economist: he believed that the economy is built into social institutions, thus disagreeing with his contemporaries, who were engaged in the construction of barriers around the “clean” economy to protect it from other social sciences. It is this intellectual position that is both critical and interdisciplinary. It does not lock us into a school of thought or a rigid tradition (Shakiryanova, 2017; Oreshina *et al.*, 2017).

The main method of research is the dialectical research method of the phenomenon allowing comparison of earlier accepted theoretical knowledge with the paradigm of modern economic theory. These methods are manifested in the ways of separation and connection of the whole and the part, the main and the secondary, the necessary and the random, the static and the dynamic, the abstract and the concrete. Dialectical methods assume any phenomena to be considered in duality of its properties and characteristics, to find their contradictions and interrelation. The properties of any phenomena are split into opposites and appear before the researcher in the form of general and special, quality and quantity, cause and effect, content and form.

The methods of analysis and synthesis are used for the classical modeling of the situation on the basis of empirical data obtained in the course of the study of the economic knowledge paradigm.

Accordingly, the method of abstracting was used for the analysis of scientific works by the representatives of economic thought. These methods have helped to achieve the main aim of the study – to consider the possibility of limited rationality formation in various information networks using streaming micro segmentation of the Internet audience. Therefore, the following tasks were set within the study:

1. to consider the main elements of the limited rationality representation in the fundamental works on economic theory;
2. to compare the ideas of limited rationality with the modern realities of supply at the market of goods and services;
3. to identify the main criteria of the modern algorithm for streaming micro segmentation of the Internet audience for the formation of limited rationality.

4. Results and Discussion

In the current conditions of socio-cultural and economic and legal changes in the society, there has been a change in the structure of the country's imports, the share of goods of European origin has increased. Therefore, the study of certain aspects of consumer behavior, namely motivation, is of great importance both in terms of

promotion of products by imported manufacturers, and from the point of view of domestic enterprises, for which the conditions of competition have changed. Motivation, as a set of motives, has mainly internal reasons of the personal plan and external factors of influence stimulating or slowing down its actions. Motivation being also a vector, is called the direction of the individual, also causes a certain type of behavior (Zhabin *et al.*, 2017).

It is proved that the most important factors of influence when choosing a product are motivational and psychological (Vinogradova *et al.*, 2018). Therefore, we highlight several main motives that guide potential consumers: benefits, stability, self-assertion, comfort, development, support, nostalgia.

Of course, each person is a separate person, so each individual's motives come into different manifestations and are stipulated by different needs. During the marketing research, it is necessary to take into account the needs of the person, i.e. the motivation of consumers. The needs can be rational or irrational, the main thing is to understand the true causes of these needs. Most often, physiological needs are rational and most reasonable (Marshall, 1890). It is here that we approach the theoretical question of bounded rationality. Introduction of value for the evaluation apparatus of the individual, persuading him/her of the need to acquire a certain economic benefit on the basis of a similar choice of representatives of the semantic field.

The semantic field of modern society positions consumers as individually selected, outstanding members of the society. Among the emotional needs of individuals there are irrational solutions; the needs are constantly changing, in particular when the style and conditions of life are changing (Karshalova *et al.*, 2018). The most common reason for changing the needs is the change in a person's income. As income decreases, a person narrows down the range of needs to the minimum necessary, and this occurs subconsciously, the brain adapts to the conditions of life to minimally injure the personality. As income increases, new emotional, cultural and intellectual needs arise.

Physiological needs are also changing, but they are not so much directed at the maintenance of life, as to the maintenance of a special status and image; people do not buy a product, but the benefit that it will bring when owning it, so the purchase of a product or service is a way of expression, manifestation of the individual in the society. Certain things or services are not always bought for their direct use. The most striking example is fashion goods, which have the same direct consumer properties as their analogues, but are much more expensive, often due to the fact that they are decorated with precious metals or stones, which do not make them more functional (Maloletko, 2017).

If the opinion of a potential consumer has already developed about a certain product, it is almost impossible to change it. It is proved that the perception of a person can

be changed in a negative direction, but if the idea of the object was bad, then it is almost impossible to rehabilitate it. Often the perception of certain things is more influenced by the mass opinion of others than by personal experience and beliefs (Nosova *et al.*, 2018).

This fact was proved by Solomon Asch back in 1953. He conducted an experiment that demonstrated the presence of conformism in human nature. The essence of the experiment was that a certain audience of people was offered to test their vision, for which they conducted several simple experiments. At first, everyone was shown pictures and put basic questions. The experiment was based on the fact that all the participants, except one, were dummy. Their main task was to simultaneously give the wrong answer to the next question with the expected answer. Experience had to show whether one person would go against the crowd, whether to defend own opinion, if fully confident in the answer. The results showed that 32% of the subjects did not go against the will of the majority in answering the obvious question. Therefore, consumer motivation must be taken into account (Rybkina and Khlevnaya, 2015).

Competitive strategies are often focused on countering competing enterprises and taking less account of the management of these enterprises, in particular, the type of behavior of its leaders. At the same time, the education of managers, their business approaches, experience, abilities and other personal characteristics largely determine the possible reaction to market changes. This means that the competition strategy should be considered as an object of competition not only for the enterprise, but also for the managers. This management apparatus with its characteristic style of leadership will allow to respond to possible countermeasures more accurately and adequately. In addition, it should be remembered that the struggle with competitors is, in the end, for the budget of consumers. And so the meaning of competition is not so much in the actions against rival enterprises, but in the conquest of specific consumers who use the services of competitors.

Recently, in the economic and management literature the term controlling started to be used, which refers to the management system of the process of achieving the final results of the organization, including the achievement of high values of economic indicators, internal control system, as well as strategic control (audit) of the organization. The main purpose of controlling is to provide the management of the organization with the results of strategic and operational assessment of the state, dynamics of the environment and the behavior of the organization at the market in the process of achieving the goals.

Limited rationality is instilled in the free market marketing system. Multiple technological solutions or other types of economic benefits are provided as options for consumers (Volkov, 2016a; Volkov, 2016b; Balabanov, 2014). However, the choice that the consumer will make, for the individual has already been made. This

is the essence of the limited rationality of consumers in free market relations where there is little regulation of marketing technologies.

There are many theories of sales. In the semantic field we are interested in the modern paradigm of marketing solutions and its comparison to the technique of aggressive sales. The main difference between the blamed marketing techniques and the modern model of supply at the market is that the consumer has a block of residual knowledge that in the society where he/she lives it is customary to use these economic benefits. The fact that these benefits are necessary for this individual is imposed by the society, however, the formed limited rationality of the consumer does not allow even to admit the idea that the purchased goods or services are not actually rational for his/her management model. As part of an objective assessment of this business model, it is not adequate to earn money to go to work by private car, and not by public transport. Henry Ford's ingenious strategy that the car is not a luxury, but a means of transportation is still relevant, but many consumers do not always adequately assess the ratio of a luxury car and a means of transportation corresponding to the economic status of the individual. This is a subjective example that occurs in many segments of consumer life.

5. Conclusion

Consumer preferences are initially formed taking into account consumer needs. The formation of limited rationality using marketing technologies is designed to create specific consumer needs. The methods of macrosegmentation and micro segmentation of network users encourage the development of marketing technologies in our time.

The organization of the semantic field can be considered as a part of marketing campaigns. With the use of these methods, the formation of limited rationality and relative paternalism in a free market is becoming increasingly widespread.

On the one hand, the market fiasco is leveled, the risks of overproduction are reduced, and on the other hand, there is a philosophical opinion about the humanity of paternalism in the society. The subjectivity of this subject is complicated by the fact that the society taking into account each subject of economic relations makes decisions and considers each decision unique. The market remains free, but in modern conditions the framework of marketing technologies influence on the consumer is necessary.

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References:

- Balabanov, V.S. 2014. *Innovative management*. Moscow: Elite.
- Danilina, I.E., Reznikova, O.S., Verna, V.V. Ganieva, A.K. 2017. Prospects for introducing the talent management concept into russian companies. *Espacios*, 38(48), 9.
- Karshalova, A.D., Markhayeva, B., Aitkazina, M.A., Mukushev, A. 2018. Improvement of management accounting in the context of uncertainty and risks in the food retail sector in the Republic of Kazakhstan. *Journal of Applied Economic Sciences* 12(8), 2275-2282.
- Kolesnikov, Yu.S., Darmilova, Zh.D. 2009. Resources for modernization of the mixed economy of the Russian South. *Studies on Russian Economic Development*, 20(1), 42-53.
- Maloletko, A. 2017. The approaches to methods and mechanisms of formation of the national risk management system of society-economic development and ensuring the economic security of the state. In 25th International Scientific Conference on Economic and Social Development – "XVII International Social Congress (ISC–2017)". *Book of Proceedings*, 567-575.
- Maloletko, A.N., Maloletko, N.E. 2016. Document Individual economic security: Reverse mortgage. *Actual Problems of Economics*, 184(10), 242-250.
- Marshall, A. 2017. *Fundamentals of economic science*. Moscow: Eksmo.
- Nosova, S.S., Norkina, A.N., Makar, S.V., Arakelova, I.V. Medvedeva, A.M., Chaplyuk, V.Z. 2018. The digital economy as a new paradigm for overcoming turbulence in the modern economy of Russia. *Espacios*, 39(24), 11.
- Oreshina, O., Povorina, E.V., Vinogradova, M.V. 2017. Adaptation of macro-economic models to solving the problem of countries differentiation in global economy. *Contributions to Economics* (9783319454610), 441-449.
- Rybkina, A.V., Khlevnaya, E.A. 2015. Behavioral economics as a new field of economic knowledge. In *Business Analysis and Behavioral Economics Interuniversity Collection of Scientific Works and Results of the Joint Research Projects*. Moscow, 137-147.
- Seif, Y., Naderi Beni, N. 2018. Identifying the effective components of information security management in information technology of Iranian offshore oil company. *Journal of Information Technology Management*, 9(4), 851-870.
- Shakiryanova, A.I. 2017. Application of applied aspects of behavioral Economics in management. In *Science and education: Problems and prospects. Materials of the Annual scientific and practical conference dedicated to the 25th anniversary Of the University of management "TISBI"*, M. Pruss, A.N. Gryaznova (Eds.). Kazan, 328-336.
- Sharashkina, T.P. 2016. Methodical Aspects of Organization and Carrying out of Functional-Cost Analysis on the Basis of Process Approach for the Purpose of Expenses and Quality Optimization. *European Research Studies Journal*, 19(3B), 77-96.
- Svetunkov, S.G., Litvinov, A.A. 2016. *Competition and business solutions*. Ulyanovsk: Publishing House "Corporation of promotion technologies", 96-104.
- Vinogradova, M., Maloletko, A., Shatsky, A. 2017. Social entrepreneurship within the framework of multi-agent system. In 25th International Scientific Conference on

- Economic and Social Development - "XVII International Social Congress (ISC-2017)". Economic and Social Development . Book of Proceedings, 642-643.
- Vinogradova, M.V., Chunikhin, S.A., Qurbanov, Y.A. 2018. Comparative assessment of efficiency of non-standard forms of employment in a company. WSEAS Transactions on Business and Economics, 15, 292-300.
- Volkov, D.V. 2016a. Forms of state representation of the monetary system. Innovation and Investment, 12, 48-52.
- Volkov, D.V. 2016b. Public-private partnerships as a variety of society-economic adaptation. Contemporary Problems of Social Work, 2(1), 65-72.
- Volkov, D.V., Akhtian, A.G., Dgibabov, M.R., Semennikova, A.I., Kusina, O.A. 2017. The effective use of human capital through the reduction of working time. International Journal of Environmental and Science Education, 12(1), 35-46.
- Zhabin, D.V., Turkov, M.M., Volkov, D.V. 2017. The potential of using the information of the fiscal data operator. Social Policy and Sociology, 16(5), 25-33.