

Dependence of Adequacy of Methods of Micro-Segmentation of Network Users on Macro-Segmentation Errors



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ABSTRACT

Currently, market relations are forced to improve the quality of products, to expand the range, to make demands on the optimal price level. The question of choosing groups of buyers, the target audience is Central to the success of organizations. The article deals with the methods of market segmentation and the analysis of the consequences of macro-segmentation errors on the micro-segmentation of consumers.

Key words: micro-segmentation of consumers, macro-segmentation of consumers, competitiveness of goods, market analysis, competitive advantages.

1. INTRODUCTION

The formation of a marketing strategy should be a series of consistent actions, in the course of which the goals and objectives underlying the ideology of the company are realized [30 – 35].

Traditionally, marketing consists of the steps of:

1. Segmentation (macro-and micro-segmentation of network users in our case).

2. Select the target audience (user group).

3. Positioning of a service or product.

The simplicity of filling the mechanism with modern technologies improves the process. Marketing research of companies, in this case, aims to [27]:

1. To satisfy desires of buyers.

2. Get a guaranteed advantage.

3. Reduce and optimize production costs.

4. To identify the availability of market niches.

The most commonly used methods for segmentation are multidimensional segmentation and grouping by certain characteristics.

To segment consumers, different criteria are used depending on the type of product or service provided (level of consumption, financial situation, age, gender, etc.).

Criteria for segmentation of consumers can be [17]:

1. Availability of the target audience.

2. Competitive advantage.

3. Differences in consumer preferences.

4. The similarity of customers on any grounds.

Let's take this case as a basis and consider the following series of activities that reveal the logic of building marketing research. Building targeted marketing consists of successive stages:

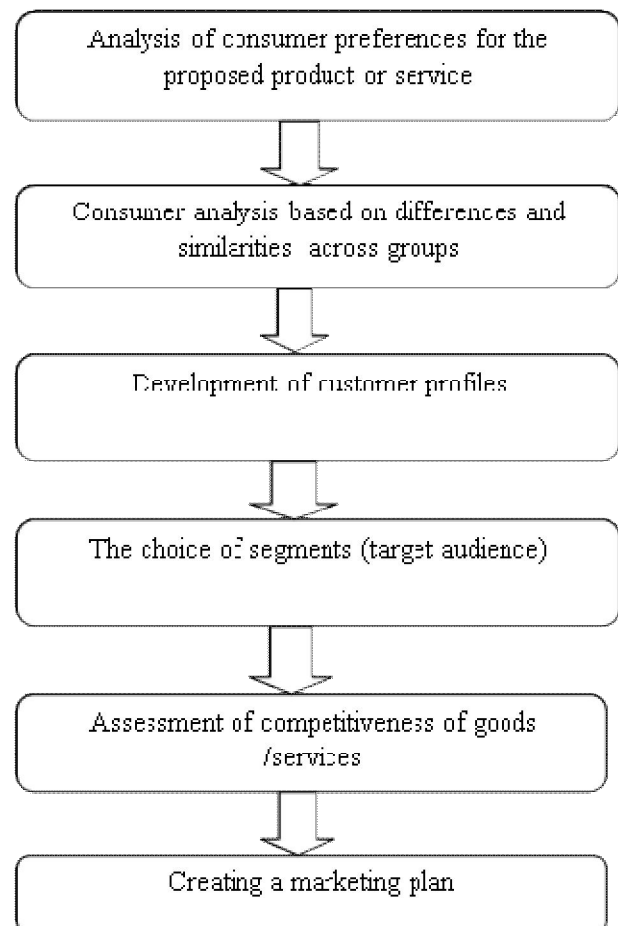


Figure 1: Stages builds trust marketing [12]

When segmenting consumers, there are two stages:

1. Macro segmentation.

2. Microsegmentation.

Macro segmentation is a generalized group of users by one or more characteristics (gender, geographical location, etc.). As a rule, this is not enough to determine the target audience.

The next stage - micro segmentation - determination of preferences of consumer groups, attitude to the product, purchasing power, etc. The results of the micro-segmentation process are - cost reduction, reduced dispersion of production capacity for non-essential groups of consumers [11].

This well-known basis forms the basis of market segmentation. From the formation of the results of marketing research depends on the effectiveness of sales, the effectiveness of investments in advertising companies.

2. METHODS

To improve the quality of the study, the following list of methodological tools was chosen:

1. The method of abstraction - Theoretical-empirical method. This method allows in the process of analytical and design work to escape from the random, situational, non-essential properties, relationships and relationships of the phenomenon under study, as in our case, the main qualitative characteristics of users, and to identify the essential characteristics of the process [9]. So in our distribution errors of distribution relating to insignificant will concern technical failures, a human factor during the analysis of segments.

2. Method of alternatives - This method improves the quality of the work performed by objectifying the procedure for choosing a method of solving a specific problem, because when it is used, different alternatives, options for action, answering a question, options for solving the problem are put forward; then these options/alternatives are discussed (for example, by a group of experts and with the involvement of a wide range of practitioners) for the final choice of the optimal solution [10].

3. The method of analysis is a Theoretical and empirical method, the dismemberment of the whole object into its component parts (sides, features, properties or relations) for the purpose of their comprehensive consideration.

4. Methods of mutual influence analysis – This method improves the quality of work performed by analyzing the influence of various factors on the studied problem [4]. Consideration of the reasons for a particular distribution, its availability, volume or lack thereof in certain countries, for example in our case, will be reflected to form a complete picture of the problem.

5. The method of analysis and systematization of data - This method involves the structuring of the materials obtained in the course of analytical actions, followed by the unification of previously disparate concepts and judgments in qualitatively new information [23]. Data analysis and systematization will be used in most project activities to improve the quality of work and in future studies.

6. Analysis method range of subproblem Method of analysis of the range of subproblem is to decompose the original problem into interdependent components, taken separately, the components of subproblem (as a rule, subject to hierarchical subordination). Then, all possible combinations of the components of the problem are compiled, for each of which a particular draft decision is

drawn up [24, 28]. The use of this method will reduce the time of the analysis of the problem and the preparation of the required materials, improve the quality of work.

7. The method of analysis of problems – Choosing the research method subproblem, we couldn't pass the method the main problems. This method is used to solve the problems of choice of alternatives by means of their multi-criteria rating. The method allows to analyze the problem. In this case, the problem is presented in the form of hierarchically ordered: a) the main goal (the main criterion) of rating possible solutions, b) several groups (levels) of the same type of factors, one way or another affecting the rating, C) groups of possible solutions, d) a system of links indicating the mutual influence of factors and solutions.

3. LITERATURE REVIEW

The theoretical basis of the study is a number of modern research in the field of modern marketing, demand generation, a number of marketing research, which form the strategy of development of enterprises of various kinds.

The problems of forming the methodology of micro-segmentation of network users can be considered from different angles. Thus, guided by the theoretical and methodological principle "from the negative", it is possible to begin consideration of problems on the part of the consumer. In the works of Shangguan and H. Q. Yuan can be seen the dependence of the choice of the user relative to rational choice, and manifestations of loyalty to a certain brand [14]. Thus, the error of micro-segmentation can consist in offering alternatives when the end user does not care about alternatives and wants to remain faithful to a certain brand. In real life, when communicating with a consultant who has experience in teaching sales techniques, during the dialogue it would be revealed that a particular brand is interested in a particular consumer and a blind offer will not have an effect. Therefore, in this case, feedback from the consumer is needed to create a network user profile with certain criteria and marks [18, 19].

Consumer choice and consumer decisions are formed taking into account what is happening around the person. The semantic field affects a person and objectively sets the tone of behavior, consumption patterns and desire to be as the main mass of users for psychological satisfaction of internal self-identification [7]. In this case, offering an individual to use, conditionally, another brand of car or mobile device is not appropriate. Otherwise, there is a psychoanalysis of the identity of the person. The desire to be not as all the same corresponds to the norms of behavior of some communities, and the identification of this particular type of user makes it possible for the development of methods of trial and error of micro-segmentation of the Internet audience.

Analysis of user profile based on social networks, user behavior in social networks provides a lot of useful information [8]. Machine learning management is important, because the human user must understand the neural network, aimed at the study of consumer needs. If we turn to foreign social networks, which present the

basics of deep learning individual pages-public, it is possible to identify a number of patterns in the analysis of algorithms of human behavior. It's not about passing a Turing test online or discussing the phenomenon of the Chinese room. In the social network community Reddit.com you can meet the public where artificial intelligence is trained information from the trends and trying to compile a news feed. Moreover, other add-ins comment on the news feed, emulating the behavior of the real user. Errors in the application of microsegmentation methods by neural networks can reveal belonging to a particular political community, for example. But these algorithms make more mistakes than they do good at the moment [16].

Formation of consumer preferences in the modern world a number of researchers refer to aggressive marketing [19]. However, the ephemeral line between advertising on the network and aggressive marketing is erased, as network users see the same advertising over and over again when using certain resources. The method of using advertising with a homogeneous offer of goods and services works on the principle of organizing the offer in the presence of a proposal for a certain profile. This phenomenon it is possible to track if a wrong click (missclick) and transition the link with atypical profile content. In the conventional case, contextual advertising will appear again and again, which will be essentially a mistake in the organization of marketing activities [5].

Studies of the theoretical discipline of decision-making techniques in Economics reflect the leveling of individual needs through decision-making [1, 2]. Psychological patterns of personality must be carefully analyzed to form a sentence. In the absence of this analysis it is possible to consider hit of certain profiles in generality as errors of microsegmentation [25]. As an example, you can bring the purchasing power parameter. Some offers are displayed to the consumer after making a certain purchase. The user profile includes information about the purchase of a product or service and, thus, the commercialization of information about the profile forms the opinion that the consumer is able to make a transaction. In the framework of small purchases of goods or everyday services, this algorithm is adequate. But when it comes to expensive things, we face the typical errors of streaming microsegmentation of the Internet audience. Having consumed a product or service, a person will not allow it soon, but advertising is aimed at attracting a client.

4. DISCUSSION

When positioning a product, an image of consumer value is created - why the consumer needs the product and why he should buy it.

Factors affecting consumer choice of goods/services:

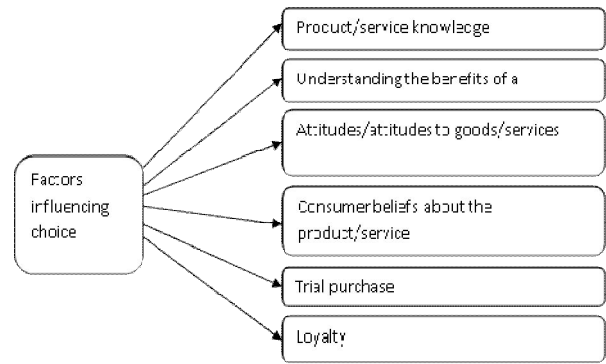


Figure 2: Factors influencing consumer choice [1, 2]

When segmenting the market, criteria are determined – any segments for the product/service are selected. Segmentation is often aimed at one group of consumers, which solves the needs of this group. Also in segmentation determine the characteristics – cues in the market services/goods. Frequent segmentation [13]:

1. Geographical (territorial units).
2. Personality characteristics (lifestyle, classes of society, etc.)
3. Demographic (gender, age,...).
4. Socio-economic differences.
5. Behavioral characteristics.
6. The benefit of consumers.
7. Loyalty.
8. The level of consumption over a period of time.
9. Type of market.
10. Hobby
11. Opinions
12. Sport

Market segmentation allows you to select the target audience, identify the type of goods or services depending on the needs and desires of consumers of the target group and competently develop the positioning of the service or product [29]. The heterogeneity of communities can be misdiagnosed, which can form an inefficient database. After segmentation, the company has advantages.

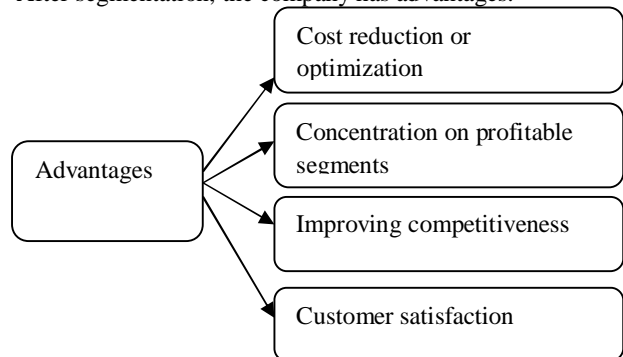


Figure 3: Segmentation benefits for organizations [15]

Segmentation divides consumers into generalized groups of geographical, behavioral, psychological and socio-demographic characteristics. Studies show research of the company "Integrated systems", tools search engines like Google, CallTouch, Segmento, Hybrid.ai and other similar companies, the algorithm of market segmentation in all cases is a compilation of the methods with micro-

segmentation, however, consisting mostly of solid blocks [26].

At the first stage of segmentation (macro segmentation), there are categories of consumers that are of interest to the manufacturer – a fairly large group whose interests can be realized by a market product. At this stage, there is a single segment that is most attractive for further analysis. The main methods of segmentation include [20]:

1. Grouping by any signs.
2. Cluster analysis.
3. A priori segmentation.
4. Multidimensional statistical analysis.
5. Segmentation by benefits.
6. Functional map method

Mistakes made at this stage will result in significant financial and time losses:

1. Insufficient target audience will lead to a low number of end users of the product/service.
2. Highly dispersed geographically target audience will lead to high logistics costs and reduced profits.
3. Lack of interest in the consumption of a product/service can make the entire production process unprofitable.
4. The selected group is located in regions with poor communication (no or poor Internet, mail, etc.)
5. Incomplete description of the group may not reveal the real preferences of users and lead to a decrease in the competitiveness of goods/services.
6. A group that does not have common characteristics may result in an incorrect estimate of the number of actual users of a product or service.
7. The heterogeneity of the group will lead to incomplete analysis of needs and the wrong choice of products and reduce the consumption of services or goods.
8. The lack of preferences of the selected target group will lead to sharp fluctuations in demand.
9. An improperly estimated or unappreciated number of consumers in the target group will lead to the wrong planning and production of excessive or insufficient production.

The right group must have the qualities [6]:

- Homogeneity of the group.
- Have distinctive features of the group.
- Full description.
- Measurability.
- Stability.
- Access to communication channels.

To determine the needs you need to answer 3 basic questions: what? for whom? How?

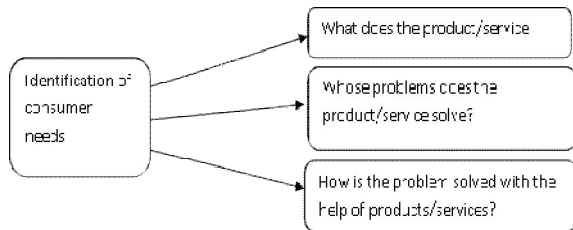


Figure 4: Key issues for the definition of the task force [21].

The second stage of segmentation (micro segmentation) – at this stage, the selected segment is studied in relation to competition, the distinctive features of consumers. The

results of micro segmentation generally reveal the nuances of preferences and are used to expand the range of products.

So, the following list of errors can be attributed to the main ones selected taking into account the analysis of the micro-segmentation algorithm [22]:

1. Under the segmentation often understand the demographics. This is not the case - demographic characteristics do not always play a role in segmentation, but it is still necessary to take into account demography.
2. In the process of segmentation - there is no understanding of the purpose of the study – what solutions will solve the information obtained during segmentation (macro-segmentation and micro-segmentation).
3. Segmentation is carried out without taking into account the psychology of users and becomes similar to statistics, does not allow to make management decisions.

Thanks to segmentation, the manufacturer learns more about the needs and preferences of consumers. Therefore, the company can more effectively adjust the sale of its products and services to the target audience based on the preferences of consumers.

Targeting a specific category of users does not exclude ignoring the other categories. Due to the development of marketing research there is a basis for the creation of targeted marketing campaigns.

At the segment definition stage, the data is used [3]:

1. Socio-demographic data - distribution by sex and age, national composition, religion, birth rate, mortality, migration, etc.
2. Data of medical statistics – the level of morbidity, medical examination, etc.
3. Financial and economic indicators - income level, housing conditions, availability of the Internet, transport communications, etc.
4. Geography of the area – distance from the Central settlements, etc.

Marketers at this stage study the circumstances that can affect the purchase of goods and services, taking into account local living conditions and lifestyle, consumer culture. Such studies are conducted by interviewing the population with the help of special questionnaires, but thanks to modern technology data are collected automatically and the commercialization of this information can bring great profits. Deep segmentation of consumers is more preferable than superficial, because it allows to better understand the consumer and is a competitive advantage for the company.

Conclusion. In an ever-changing market environment, studying the target audience and identifying priority market segments is an important task for any commercial enterprise. The main stages of product promotion are segmentation, marketing strategy and positioning. The first item is segmentation, which is initially called macro-segmentation, the second stage - micro-segmentation. The right choice of the target audience at the stage of building macro segments allows to avoid mistakes at all subsequent stages of product/service promotion. Based on the results of the analysis of communities, semantic fields and identification of relevant correlated qualitative positions in them, it is possible to work with the resulting database.

The quality of this database depends on macro segmentation errors.

The adequacy of the methods with micro-segmentation can be discussed theoretically. Statistical indicators of this value and divergence in macro-segmentation errors are difficult to identify. The error in working with big data can be calculated in thousands of units, where the unit is a consumer of goods and services.

At this stage, study the circumstances that may affect the purchase of goods and services, taking into account local living conditions and lifestyle, consumer culture. Such studies are conducted by interviewing the population with the help of special questionnaires, but thanks to modern technology data are collected automatically and the commercialization of this information can bring great profits. Deep segmentation of consumers is more preferable than superficial, because it allows to better understand the consumer and is a competitive advantage for the company.

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