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## ANALYTICAL FORECASTS AS FOR THE MINERAL WATER BRANCH STABILIZATION

**Abstract.** Consumer water resources are significant natural resources of Ukraine, and their efficient use makes it possible not only to satisfy primary needs of people but also raise the export potential of the nation, ensure its positive image. Nowadays, the mineral water market has dynamic characteristics and occupies a leading and advanced position within the food industry as its sub-structure.

**Purpose.** To analyse position and role of mineral water production within the industrial and economic system of food industry, as well as consumers' demand formation in the market taking into consideration the experience of other countries; to research tools of the integrated weighed strategy of mineral water distribution forming.

**Results.** The mineral water market within the industrial and economic system of food industry is considered the most dynamic; it shows the growth of volumes in value equivalent due to the increase of population, change of consumer expenses models, becoming health a priority in comparison with other values for many people. The experience of reforms in Ukraine has proven the necessity to use a special social policy in respect of the mineral water market as far as the issues of their sources exploitation, and regulation of market relations are of the nation's interest. Identifying the modern line of market relations development directed at the processes of economic revival and consumption of commodities to satisfy buyers' needs, the mineral water market provides diverse and large-scaled product range satisfying consumer demands.

**Conclusion.** The mineral water market has a great growth perspective conditioned by the increase of the mineral and drinking bottled water popularity among the consumers. Due to the prospective development of the market, high marketing activity of the players is to be observed, as well as the growth of industrial capacity of the market leaders, including the acquisition processes. New national and international brands are highly possible to emerge; new functional products (water with vitamins, with different flavours etc.) may be developed; and the premium segment has not been completed so far. Due to the expansion of integration space, it is important to make a tool industry development analysis, the proportion of water production in Ukrainian regions, and opportunities for export-import operations of the countries. The prospect of further investigations is concentrated on more detailed analysis of international experience, formation and development of the mineral water market, identification of the factors determining the growth of the industry and formation of managerial strategy.

**Keywords:** analytical forecasts; industrial and economic system; mineral water industry; food industry.

**JEL Classification:** O10, O16, O18

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#### АНАЛІТИЧНІ ПРОГНОЗИ СТАБІЛІЗАЦІЇ РОЗВИТКУ ГАЛУЗІ МІНЕРАЛЬНОЇ ВОДИ

**Анотація.** Проаналізовано місце і роль галузі мінеральної води у виробничо-економічній системі продовольчого комплексу. Досліджено формування споживчого попиту на ринку мінеральної води України з урахуванням досвіду інших країн. Зроблено акцент на інструментах розвитку галузі, частці виробництва води в регіонах України, створенні умов для здійснення експортно-імпортних операцій по країнах.

**Ключові слова:** галузь мінеральної води; виробничо-економічна система; продовольчий комплекс.

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#### АНАЛИТИЧЕСКИЕ ПРОГНОЗЫ ПО СТАБИЛИЗАЦИИ РАЗВИТИЯ ОТРАСЛИ МИНЕРАЛЬНОЙ ВОДЫ

**Аннотация.** Проанализированы место и роль отрасли минеральной воды в производственно-экономической системе продовольственного комплекса. Исследовано формирование потребительского спроса на рынке с учетом опыта других стран. Сделан акцент на инструментах развития отрасли, доле производства воды в регионах Украины, создании условий для экспортно-импортных операций по странам.

**Ключевые слова:** отрасль минеральной воды; производственно-экономическая система; продовольственный комплекс.

**Introduction.** Today's Ukraine is one of the leading European states as for extracting, pouring and distributing mineral waters and can fairly consider water to be a real treasure, requiring reasonable attitude towards its usage, storage and multiplication. Water consuming reserves are Ukraine's important natural resource, and their efficient use can both satisfy people's primary needs and increase export potential of the country, and ensure its positive image. Mineral water is a widely spread drink, popular in many countries of the world.

The dynamic development of the mineral water market is targeted at occupying the leading positions in today's market, this market being a part of food industry as its sub-structure.

The topicality of the subject matter chosen for the study is evitable. The creation of the development strategy for the industry has been pushed by the growing value of mineral water due to the increase of population, the change of consumers' expen-

ses models, health becoming a priority health in comparison with other values.

**Brief Literature Review.** The mineral water market, industrial-and-economic system operation in the food industry have been studied by well-known national and international researchers, namely A. O. Zayinchkovskiy (2011) [1], O. I. Oleksuk (2009 [2], E. Osypenko (2007) [3], M. Khalyavinska (2013) [4] and others. However, more attention should be paid to the development of the mineral water industry, the conditions for higher and more distinct standard of compatibility, production efficiency and profitability of enterprises, the analysis of reasonable use of tools of development of integration space in the mineral water market. Among foreign researchers may be noted: T. Sakaiya (1991) [15], J. Forrester (2009), P. Doyle (2002) [16].

It is the progressive development of market links that is directed at the growth and expansion of integration space in the

mineral water market. The instability of political, economic, social, scientific-and-technical processes, slower processes of attracting foreign investments, poorly regulated price policy of enterprises, as well as the negative influence of crisis phenomena is slowing down the development of the mineral water market settling close co-operation in foreign trade and investment activity [1].

**The purpose** of the paper is to analyse the place and role of the mineral water industry in the industrial and economic system of food industry, analyze the formation of consumers' demand, taking into account experience of other countries, as well as the tools of forming the strategy of mineral water distribution at the integration level.

**Results.** The mineral water production within the structure of industrial and economic system of the industry is considered the most dynamic. The fact that annual mineral water consumption in the world makes 97 billion litres gives the ground to such a conclusion [5]. The leader in this respect is Europe, among its countries France, Italy and Germany takes 50% of the world consumption. The US follows them having 20% of world mineral water consumption. It should be mentioned that Asia and the Pacific region are of high potential for strengthening their positions by the analyzed characteristics, for the annual growth rate of mineral water consumption is 15% (Figure 1).

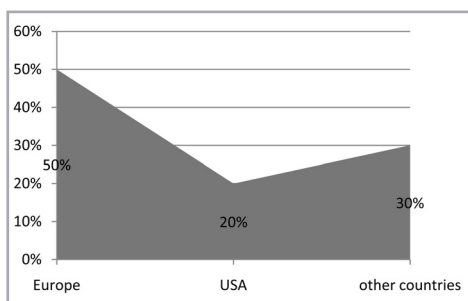


Fig. 1: The distribution volume of consumption of mineral water in the world market  
Source: [5]

Mineral water is rather widely spread drink and popular in many countries of the world. It is accounted for by the fact that people are sure about healthy properties of mineral water, which stimulates the skin to regenerate, cleans up the stomach from different harmful materials, enriches organisms and prevents from getting older. Water being so popular among consumers ensured the development of the mineral water consumption, and now this market is one of the leading in the world. In Ukraine the mineral water market, as well as in the most countries of the world is rather well developed. In the general structure of consumption one can see inconsiderable fluctuations in the share of mineral waters, namely the growth of consumption during the summer period and its reduction during autumn-and-winter period. At the same time the number of people consuming mineral waters is approximately the same as the share of consumers of tea, juice, beer and low alcoholic beverages, milk and sour milk drinks. Such distribution speaks of the fact that mineral-and-table waters are among traditional drinks including the basic high-calorie, vitamin and low-alcoholic drinks. In fact, to admit this fact means that market trends of these adjacent markets can be compared.

The experience of Ukraine's economy reforming has proven the necessity of a special policy as of the mineral water market concerning the development of sources and regulation of relations within the market conditions. The combination of economic relations, forms and methods of correlation of interests of producers and consumers, connected with the organization of distribution of mineral waters, which forms the mineral water market. The mineral water is what is sold. The share of mineral and table water is, according to different esti-

mations, from 40 to 60 percent of non-alcoholic drinks market. It reaches about 2.3 to 2.5 billion litres per year [6].

Ukraine is among the global leaders as of the mineral water reserves. The volume of mineral water market of Ukraine is estimated as 1 billion USD. Experts believe that efficiency of a small company that functions in this market is up to 30% [7]. High efficiency and the fact that the segment is realized just by half makes the market of bottled water very attractive for investors.

Nowadays, the state regulates the extraction of water resources, qualitative and quantitative limits of production of mineral waters, takes care of consumer's safety by means of the existing standards and metrological tools. At the same time there is a problem of stimulation devices use with the purpose of the development of a balanced market; there is a necessity to form priorities in so far as the mineral water flows is concerned, creation of conditions or the increase of competitive advantages of national mineral water manufacturers. In the market environment of the mineral water market players, there is a need to distribute and redistribute their roles in order to make the market structure meet the external environment.

Among the environmental factors, capable of influencing the state and development of a human organism on both cell level and macro-level, there is a physiological sufficiency of the water a person consumes, i.e. to what extent the water used to drink and cook gives biogenic macro- and microelements (mineral substances), necessary for a human organism [8].

The mineral water market used to develop very fast until some time ago, however it should be pointed out that it has slowed down during the recent years. I. O. Shapovalova [9] has singled out the most important and significant elements of the mineral water market, characterizing the market: manufacturers (extractors), consumers, infrastructure, consumer water resources, information, and cash flow.

There is an individual niche discussed by analytics [10] for a long time, but not widely spread in Ukraine is a niche of flavoured waters. This product is positioned on the one hand, as a useful alternative of sweet non-alcoholic beverages, and on the other hand a product within mineral water price segment. The product, both useful and functional and new, is targeted first of all at a consumer, following new tendencies in the market.

Identifying the aim of the contemporary stage of market relation development to be directed at the processes of production renovation and consumption of products in order to satisfy buyers' needs, one should stress the fact that in this context the mineral water market has a wide range and volume of products offered, which ensures the satisfaction of consumers' needs.

Recently the consumption of bottled water has increased in the world, including Ukraine. The deterioration of the quality of bottled drinking water can be accounted for by changes of their chemical composition, microbiological contamination, as well as violations in the term and conditions of storage, peculiarities of technology of water preparation, fraud in water production (the bottled water quality, not complying with the information of the label) [11].

The most capacious regional segment of the mineral water market in Ukraine is the Central region making up to 32% of general water consumption (Figure 2). At the same time the

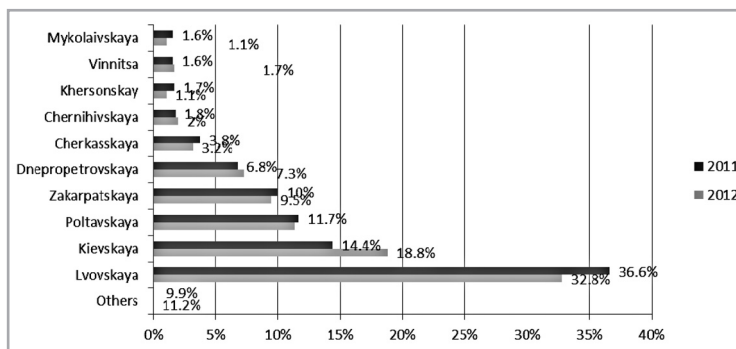


Fig. 2: The proportion of water production in the regions of Ukraine, %  
Source: Author's calculations based at [12]

share of the Central region in the structure of the general mineral water consumption tends to grow in Ukraine, while that of the Eastern and Southern regions it tends to fall. The capacity of the Western regional market of bottled waters remains low and comparatively stable, which can be accounted for by a wide range of regional brands and local waters, as well as the fact that local people prefer water from natural springs (especially in rural areas) [2].

It should be mentioned that another peculiarity of the national mineral water market is the growth of table water segment, determined by a very low quality of tap water.

Meanwhile the level of bottled water consumption in Ukraine is still one of the lowest in Europe, 58% lower than average consumption in Europe. To put it differently, an average Ukrainian consumes over 41 litres per year, or 120 gram per day, while it is over 200 litres in Italy, 138 litres in France, 127 litres in Germany [7]. In well-developed countries of Eastern Europe, such as Hungary, Poland, the Czech Republic, the average consumption of mineral drinking water is 45 litres l per 1 person a year, in Western European countries it is about 100 litres, and in some European countries, such as Belgium, Germany, Spain, Italy, and France, it is over 100 litres [1]. The legal status of water depends on the location of water resources rather than on the market, it is sold in. From this it follows that the bottled water production based on natural resources has some complications. Thus, extraction of water is to be carried out in non-contaminated regions, though this condition is regularly violated by the construction of mineral water factories, which is not environmentally friendly, though mineral water factories give jobs to local rural people, which reduces the unemployment rate and number of guest workers going from rural areas to other places to find job. Experts [13] suggest that such factories make insignificant effect on the environment and use renewable resources.

The disputable issues are legal questions of water resources use. Local authorities issue numerous permissions for the mineral water production, not always grounded from the viewpoint of the impact the bottle water production can make on local or national water reserves.

The peculiarity of the Ukrainian market is scarce export. It results in the loss of cash receipt into the budget caused by lower tax payments and customs duties. However, the Ukrainian people are able to consume high quality product prepared for export, which is usually of higher quality.

It is also worth mentioning that Ukraine has made certain conditions for the increase of the export of mineral water. Here belong available raw material and relatively low value of the product. Export of mineral waters is inconsiderable and 4 times less than its import, making below 1% of production volume [14].

Three recent years has seen the tendency of export volume reduction (Figure 3). 80% of products are exported by IDS Group company. The main importers of Ukrainian mineral waters is Russia, CIS countries and Baltic countries. Import is growing yearly: in 2010 import grew up to 60%, and in 2011 – to

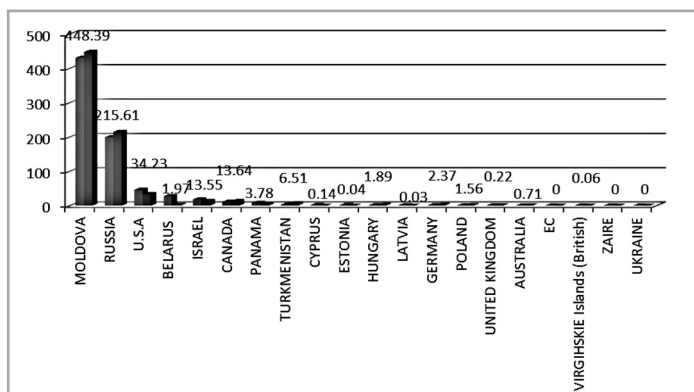


Fig. 3: Export of Ukraine's natural mineral water (in natural units, dal) in 2011-2012

Source: Author's calculations based at [12]

21%. The main supplier of mineral water to Ukraine is Georgia. Other suppliers are Russia, France, Italy, Poland, Canada, Switzerland and other countries [6].

Alongside the fall of demand for national products, one could observe the reduction of demand for imported products. From 2008 to 2009, the volume of mineral water import fell by 25%. However, in 2010, the growth of about 60% was marked. Considering the main importers of mineral waters to Ukraine, the share of import (more than 60%) falls on Georgia, the rest is shared by Russia and France (Figure 4) [14].

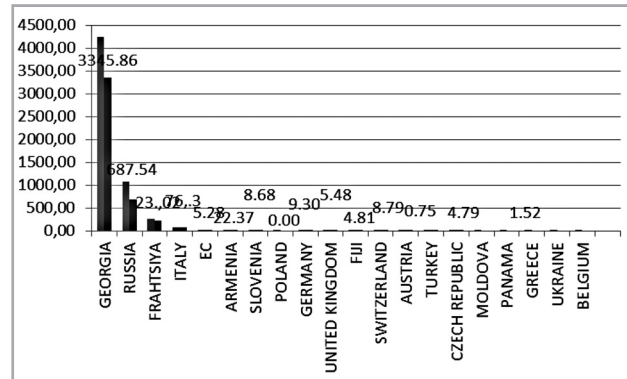


Fig. 4: Imports of the natural mineral water in Ukraine by countries in 2011-2012 (in natural units, dal)

Source: Author's calculations based at [12]

The results of the latest research give the following data as of 2011-2012.

The development of integration space in the mineral water market is possible if the following tools are used:

- legislation acts to regulate the activity of economic entities, restrict the activity of intermediaries, which stimulates inflation growth, results in a many-time increase of prices for products;
- governmental activities within macro-economic plans and target complex programmes that are to contain certain decisions as of the functioning of resource saving mechanisms, to arrange the system of control over the mineral water extraction, and establish the limits per import of mineral water into our country in order to support national producers;
- development of regulations to control quality for it to meet requirements of international standards;
- usage of scientific-and-technological achievements in order to accelerate the production rate and increase its volume;
- active spread of information, including the use of the Internet network, mass-media to form integral view on the contemporary tendencies of the mineral water market development [1].

**Conclusions.** The following analytical forecast base at the undertaken research may be proposed as of the today's mineral water industry development.

*Firstly*, the market has a high growth potential, caused both by the increased demand for the mineral and drinking water among consumers taking care of their health, and rather low consumption in comparison with other countries.

*Secondly*, taking into account the perspective development of the market, rather high marketing activity of players will be observed, as well as increase of production capacity of the leaders of the market, including the acquisition process.

*Thirdly*, there is a great possibility that new brands will emerge, both national and international, new functional products will be developed (water with vitamins, flavours etc.), for the premium segment remains unoccupied.

Intensive development of integration space in the mineral water market requires the use of tools aimed at the development of the strategy of its effective implementation.

Perspectives of further research include more detailed analysis of foreign experience in the formation of the mineral water market, singling out the factors determining the growth of the industry and the formation of a managerial strategy.

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