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INNOVATIVE STRATEGY DEVELOPMENT FOR ALCOHOL ENTERPRISES OF UKRAINE

The article deals with the main problems of the development of enterprises of the alcohol industry. It is determined that one of the main problems is the lack of opportunity for development of alcohol enterprises, unregulated legislation on the production of alcohol-based liquids of technical origin, the abolition of the preferential rate of excise tax on ethyl alcohol, which is used for the production of edible vinegar and perfumery products, as well as alcohol denatured ethyl alcohol (technical alcohol), which is used for the production of technical and household products, other heavy, light, and chemical products. It is determined that the construction of an innovative strategy for alcohol companies could ensure the restoration of the production of alcohol companies that are currently idle.

Keywords: alcohol, alcohol enterprises, management, strategy, reorganization, innovation.

Problem of research. The high world level competition in the production of ethyl alcohol requires the creating innovative strategy by the implementation of a complex of modern technical investments (modernization, implementation of effective resourcesaving and environmentally friendly technologies), organizational measures, financial and economic and other measures in the alcohol industry, which will allow to increase the volumes of alcohol production, bioethanol and components on its basis, alcohol-based products for technical purposes, ethyl alcohol-raw alcohol for the production of bioethanol, fraction of the main ethyl alcohol with intermediate impurities for the production of bioethanol, ethyl alcohol for the production of perfumery products, ethyl alcohol, alcoholic beverages, ethyl alcohol and other types of products, reduce the cost of their production, improve the quality and competitiveness of products both on the domestic and in foreign markets.

There are a number of issues concerning the development of the alcohol industry, the solution of which will allow to expand the range of manufactured products, to use the capacities of State Enterprise "Ukrspirt", expand the tax base and increase revenues to the budget, create investment attractive production, reduce energy dependence of Ukraine, replace imported alcohol products with domestic.

Analysis of the recent research and publications. Innovative strategy at enterprises is the subject of scientific research by foreign scientists such as: V. Anshin, P. Drucker, S. Ilyenkov, E. Mansfield, M. Porter, A. Santo, D. Sahal, K. Freeman, J. Schumpeter and others. A significant contribution to the development of the general theoretical issues of innovative strategy transformations belongs to domestic scientists such as: O. Butnyk-Siversky, A. Galchinsky, V. Heyets, S. Gutkevich, M. Denisenko, O. Datsiy, M. Yermoshenko, C. I. Illyashenko, N. Krasnokutska, D. Krisanov, L. Matrosov, T. Mostenska, V. Oleksandrov, O. Petukhova, I. Fedulova, Z. Shershnev and others.

Unsolved part of general problem. It should be noted that there are a lot of discussions about the fact that for the alcohol industry it is necessary to take urgent measures to increase the volume of sales of ethyl alcohol. We are discussing the topic of reprofiling of idle enterprises for the production of technical alcohol in order to master new markets.

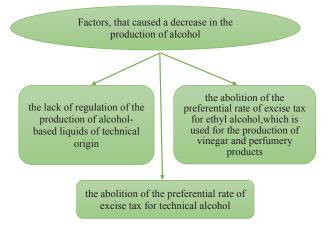
The aim of the article. To use the aspects of development of innovation strategy for alcohol enterprises to stop the deterioration and increase the profit opportunities.

Research methods. To make a research it were used a theoretical methods, such as abstraction, analysis and ascension from abstract to concrete.

In the study of the main directions of innovation development of alcohol enterprises, system analysis and system approach were used.

The main results of the study. The alcohol industry of Ukraine plays a significant role in supplying the sectors of the national economy with raw materials and stable revenues to the State Budget of Ukraine.

The SE "Ukrspirt" capacity for the production of ethyl alcohol is estimated at 27.4 million decalitres of alcohol per year; 1.8 million tonnes of technical liquids; 1.1 million tons of technical alcohol; components of fuel motor (bioethanol) – 6 million decalitres; ethyl alcohol drinking – 0,4 million decalitres; ethyl alcohol medical – 0,7 million decalitres; fraction of the ethyl alcohol – 1,4 million decalitres; flaxseed oil – 0,1 million decalitres, alcoholic beverages – 1,9 million decalitres, yeast of baking presses – 3,000 tons, liquid carbon dioxide – 17.4 thousand tons, kvass concentrate – 2 thousand tons.



Possible solution to the problem of idle free capacity of alcohol enterprises caused by the lack of sales markets is the creation of a strategy for innovative development, which aims to re-profile the capabilities of alcohol enterprises.

Let's overview the main definitions.

Innovation strategy – a plan made by an organization to encourage advancements in technology or services, usually by investing in research and development activities. For example, an innovation strategy developed by a high technology business might entail the use of new management or production procedures and the invention of technology not previously used by competitors [2, 92].

The innovation strategy defines the role of innovation and sets the direction for innovation execution. However, the role of innovation in helping organizations achieve growth targets is often unclear and the revenue growth from innovation is insufficient, unless managed with great rigor [3, 7].

An innovation strategy is about creating winning products, which means products that are in an attractive market, target a profitable customer segment, address the right unmet needs, and help customers get a job done better than any competing solution. Only after a company produces a winning product or service should it consider what activities are needed to deliver that product or service [4, 92].

Also it is necessary to understand what the development strategy means. Three basic strategies are:

- incremental: slow but steady approach (without attempting a leap) in which an already conceived end result is aimed for.
- evolutionary: slow but steady approach (without attempting a leap) in which there is no pre-conceived end result but each successive design or product is a refinement of the previous one.
- grand design: total transformation through a right-the-first-time approach [2, 90].

Strategic planning is an organizational management activity that is used to set priorities, focus energy and resources, strengthen operations, ensure that employees and other stakeholders are working toward common goals, establish agreement around intended outcomes/results, and assess and adjust the organization's direction in response to a changing environment [1, 68].

So, we need to build the such innovative strategy that can give the opportunity to create a winning product, which will help State Enterprise "Ukrspirt" achieve growth targets.

One of the main problem is that the tax legislation of Ukraine identifies ethyl alcohol that is used in the food industry and technical alcohol (denatured alcohol), which can be used exclusively for the production of non-food products, by setting the same rates of excise duty for these alcohols.

Such a rate of excise tax on alcohol denatured (technical alcohol) led to an almost complete stop of its production (60% of the production capacity of the distilleries is not used).

Technical products manufacturers, chemicals manufacturers, solvents manufacturers, biofuels manufacturers, as well as manufacturers of other products of the heavy, light and chemical industry have ceased to buy domestic denatured alcohol (technical alcohol).

Because of its price is not competitive compared with similar imported alcohol liquids (annual imports of alcohol-based liquids for he technical purpose is more than 3-5 million decalitres of 100 percent alcohol).

The supply of domestic ethyl alcohol to the enterprises of the perfume and cosmetics industry and to the producers of edible vinegar has stopped (today in Ukraine vinegar is made from synthetic concentrated acetic acid).

This situation leads to an increasing of the Ukraine's currency balance deficit, which leads reducing the number of jobs and reducing tax revenues to the budget (the excise tax on technical alcohol is almost not paid due to the stop of its production).

The Cabinet of Ministers of Ukraine adopted a resolution No. 672 "The Establishment of a State Enterprise for the Alcohol and Liquor Industry" on July 28, 2010.

In pursuance of the above-mentioned resolution, 40 state-owned enterprises were reorganized, on the basis of which 41 settlements of Ukrspirt's activities were created, and 41 further enterprises are part of the Ukrspirt concern.

The centralization of the production of alcohol made it possible to preserve the industry of the industry from further bankruptcy and to formulate a single policy in the field of alcohol production, which enabled the profit-making work of the State Enterprise "Ukrspirt".

In connection with the entry into force of the Energy Community from Ukraine on February 1, 2011, Ukraine has incurred obligations under the Accession Protocol to the Treaty establishing the Energy Community, which in particular provides for the implementation of Directive 2003/30/ EU of the European Parliament and of the Council of May 08, 2003 on the promotion of the use of biofuels or other renewable fuels for transport to the legislation of Ukraine.

According to the Law of Ukraine "On Alternative Fuels", bioethanol and its components relate to biological fuels (biofuels) – solid, liquid and gas fuels, made from biologically renewable raw materials (biomass), which can be used as fuel or a component of other types fuel. Bioethanol is a depleted ethyl alcohol, made from biomass or ethyl ether alcohol for use as biofuel.

Since ethyl alcohol does not belong to consumer products and is a raw material for the production of other products (alcoholic beverages, medicines and veterinary preparations, confectionery, organic synthesis products, perfumery products, vinegar, etc.), the volume of its production and sale depends on the demand for alcohol consumers, as well as from the state tax policy.

Also, production of alcoholic vinegar is not carried out, production capacity is idle, and vinegar is made from organic acids. Raw material for the production of perfume and cosmetic products comes from abroad (0.3 million dl of alcohol-containing aromatic substances are imported annually).

Annual demand for alcohol for the production of:

- vinegar is 200 thousand decalitres,
- for the needs of the perfume industry 300 thousand decalitres.

The annual volume of imports of alcohol-based technical products is 3.5-5 million decalitres. Alcohol plants have capacities and technological schemes for the organization of the production of the said products and, accordingly, the substitution of imports.

The suggested methods of solving the problem are shown in the Table 1

The annual consumption of gasoline is 5 million tons. In order to ensure the addition of 5% bioethanol to blended petrol, according to the law, its annual requirement is 250 thousand tons or 30 million decalitres.

Problem issues for the production and circulation of bioethanol and components of motor fuel on its basis are:

- the issue of the movement of alcohol and the main fraction of alcohol from distilleries to an enterprise that has equipment for the dehydration of alcohol and the production of bioethanol and components of motor fuel alternative are not regulated;
- the procedure for the implementation of the alternative motor fuel component needs to be simplified.

It is therefore advisable to make appropriate changes to the legislation. It is impossible to apply for the production and circulation of components of motor fuel alternative the procedure that is established for alcohol, because it will stop its production.

Table 1

Steps to do to start the innovative development of alcohol enterprises

Step	To amend the Tax Code of Ukraine, in particular, to establish a zero or preferential excise tax rate (1-2 UAH per 1 liter of anhydrous alcohol) for alcohol dispensed for the needs of the perfumery industry, production of edible vinegar.
Step	To determine the quotas for alcohol consumption, to introduce a bill of exchange, and alcohol-based liquid (reflux component of rectification) for technical needs.
Step	Identify enterprises for the production of technical liquids.
Step	To establish an electronic record of the production of alcohol-containing products, to introduce automatic denaturation of alcohol-based liquid, to provide enterprises with a chromatograph to determine the amount of denaturing additives in the batch of products leaving for the release of finished products.

Therefore, it is necessary to analyze the consumption of alcohol in the world market, in particular technical, in terms of competitiveness. In order to reduce the cost of production introduce the latest technologies and energy saving schemes. The consequences of monitoring the consumption of alcohol in the EU countries to use in planning its production. Give permission to sell products at prices operating in the European market.

The main reason for the high cost of bioethanol is the low productivity and obsolete equipment of enterprises, which can produce bioethanol, the impossibility of introducing energy-saving measures due to lack of financing.

Considering all the problematic moments, we suggest a strategic plan for the innovative development of alcohol enterprises.

The innovative strategy plan for alcohol enterprises is aimed at ensuring the efficient and profitable operation of State Enterprise "Ukrspirt" by increasing production volumes and expanding the range of products, replacing imported alcoholic products, reducing the cost of production through the use of secondary energy resources, the integrated implementation of the technology of alternative fuels, production biogas from post-alcoholic bards, reducing the use of natural resources (artesian water).

The main mission of the innovative strategic plan for the development of State Enterprise "Ukrspirt" is the preservation of the production potential of the alcohol industry and the creation of conditions for its effective work through the modernization and redevelopment of capacities for the production of new types of spirits products, reforming the industry through the elimination of unpredictable enterprises, and ensuring effective control of manufactured products.

Define the strategic goals and directions of the innovative strategy plan for development of alcohol enterprises:

- 1. Expansion of the range of products and redevelopment of unused production of surplus production capacity for the production of demanded products. These measures, in particular, will allow for the replacement of imports of light petroleum products. To do this, it is planned to re-equip technological schemes for the production of the different types of products.
- 2. Improvement of technological schemes due to:
 complex processing of raw materials, implementation of schemes of processing of wet corn;
- increasing in the concentration of alcohol in the mature jug due to the selection of strains of yeast, producing alcohol content of more than 10% vol., as well as optimal complexes of enzyme preparations used in production;
- enamelling of the inner surface of fermentation vehicles in order to improve the quality of disinfection of equipment without the use of steam and

increase the microbiological purity of the fermentation medium:

- replacement of alcohol contaminants of fermentation compartments on condensate films, which allow to obtain the strength of water-alcohol liquid 6--8% by volume;
- equipment of bragorectification plants of enterprises aimed at the production of ethyl alcohol of nutritional purpose, accelerating columns;
- production of wet concentrates of bards and dry after-alcoholic bards;
- the return of filtrate bards to make dough (at first 30% with the prospect of a 100% return);
- (at first 30% with the prospect of a 100% return);
 introduction of circulating water supply plants;
- introduction of electronic accounting of alcohol-based products at enterprises producing bioethanol and its components, alcohol-based products of technical purpose, technical alcohol, including the development of instructions for automatic accounting;
- conducting a technological audit of all enterprises of State Enterprise "Ukrspirt", in particular, with the purpose of establishing real production capacities.
 - 3. Implementation of energy saving measures:
- transfer of steam generating units to alternative fuels (liquid and solid);
- implementation of the technology of production of biogas from the bard, which will enable to obtain biogas with a concentration of methane up to 75%;
- installation of burners for the burning of liquid fuels;
- replacement of energy-intensive engines, installation of frequency converters;
- automation of production processes, heat recovery in technological processes;
- transfer of bragorectification units to work under a small vacuum.
- 4. Improvement of the ecological state of the environment due to:
- organization of production of concentrate of wet bards and dry post-alcohol bardes according to DSTU 4478: 2005 "Processing products of grain bardes after alcohol. General specifications «;
- introduction of the technology of production of biogas from bards, which will enable to reduce the CSC bards from 70-80 to 5-7 mg/dm3 in the processing of sugar raw materials and from 26 to 2 g/dm3 in the processing of starchy raw materials.

Achieving these goals will ensure:

- preservation of the production potential of the alcohol industry and creation of conditions for its effective work through the conversion of part of the excess capacity for the production of bioethanol and its components, alcohol-based technical products, ethyl alcohol-ethanol for the production of bioethanol, fraction of the main ethyl alcohol with intermediate impurities for production Bioethanol, ethyl alcohol, intended for the production of edible vin-

egar and perfumery, ethyl alcohol, alcoholic beverages, and other types of products;

- expansion of spheres of alcohol production, production of new types of vodka and other products;
- implementation of modern technological solutions that allow bioethanol to be produced in an economically feasible way:
- reduction of dependence of the state on import of energy carriers due to production of biogas and conversion of boiler houses to the use of alternative fuels (liquid and solid);
- stabilization of the enterprises of the alcohol industry due to their full load and organization of production of liquid products in the market;
- increasing of capacity of the market of products of the domestic agrarian sector;
- creation of an internal market of biofuels, expansion of export potential;
- improvement of the ecological state of the environment due to production of biogas;
- concentrates of bardes of wet and dry post-alcoholic bards;

- ensuring the profitability of the industry and increasing revenues to the budgets of all levels, replacement of imports of alcohol-based products.

Conclusion. Taking into account that the existing capacities of State Enterprise "Ukrspirt" are not provided with alcohol sales markets, we determind that the main aims of the innovative strategy for the alcohol enterprises should be: an increasing in the production of bioethanol and its components, alcohol-based products of technical purpose (glass washer, means for combustion of fire, solvents, detergent concentrates, etc.), and expanding the range of products from the production of ethyl alcohol raw and fraction of ethyl alcohol intermediate impurities to produce ethanol, ethyl alcohol for perfume, ethyl alcohol drinking, new types of vodka, medical ethanol and other products through the modernization Ukraine will reduce dependence on imported petroleum products, imports displace alcohol-containing products that preserve the environment, as well as improving the financial situation of State Enterprise "Ukrspirt", increase revenues to budgets of all levels.

References:

- 1. Bigoness, W.J, & Perreault, W.D. Jr. "A conceptual paradign and approach for the study of innovators". Academy of Management Journal. 2015- 24 (1). 68.
- Collis, Daniel J., and Michael G. Rukstad. "Can You Say What Your Strategy Is?">
 » Harvard Business Review, 2016, pp. 90-92.
- 3. Fulmer, Robert M., and Leslie W. Rue: "The Practice and Profitability of Long-Range Planning," Managerial Planning, vol. 22, 2017, pp. 7.
- 4. Porter, M. E. and Kramer, M. C. "Strategy and society: the link between competitive advantage and corporate social responsibility". Harvard Business Review, 2016, 84, 92.

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РОЗРОБЛЕННЯ СТРАТЕГІЇ ІННОВАЦІЙНОГО РОЗВИТКУ СПИРТОВИХ ПІДПРИЄМСТВ УКРАЇНИ

Резюме

У статті розглянуто основні проблеми розвитку підприємств спиртової промисловості. Визначено, що однією з головних проблем є відсутність можливості розвитку спиртових підприємств через нерегульоване законодавство щодо виробництва спиртових рідин технічного походження, скасування пільгової ставки акцизного податку на спирт етиловий, який використовується для виробництва оцту та парфумерних продукції, а також на технічний спирт, який використовується для виробництва технічних рідин, продукції технічного призначення, продуктів хімічної промисловості. Визначено, що побудова інноваційної стратегії для підприємств спиртової промисловості може забезпечити відновлення виробництва спиртових підприємств, які нині простоюють.

Ключові слова: спирт етиловий, спиртові підприємства, менеджмент, стратегія, реорганізація, інновації.

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РАЗРАБОТКА СТРАТЕГИИ ИННОВАЦИОННОГО РАЗВИТИЯ СПИРТОВЫХ ПРЕДПРИЯТИЙ УКРАЙНЫ

Резюме

В статье рассмотрены основные проблемы развития предприятий спиртовой промышленности. Определено, что одной из главных проблем является отсутствие возможности развития спиртовых предприятий, которое вызвано нерегулируемым законодательством по производству спиртных жидкостей технического происхождения, отменой льготной ставки акцизного налога на спирт этиловый, используемый для производства уксуса и парфюмерных продукции, а также на технический спирт, который используется для производства технических жидкостей, продукции технического назначения, продуктов химической промышленности. Определено, что построение инновационной стратегии для предприятий спиртовой промышленности может обеспечить восстановление производства спиртовых предприятий, которые сейчас простаивают.

Ключевые слова: спирт этиловый, спиртовые предприятия, менеджмент, стратегия, реорганизация, инновации.