

უკრაინის ლაქ-საღებავების მრეწველობის დარგის სანარმოების საქმიანობის ეფექტურობაზე გარე ფაქტორების გავლენის დასაბუთება

SUBSTANTIATION OF THE INFLUENCE OF EXTERNAL FACTORS ON THE EFFICIENCY OF THE ENTERPRISES OF THE INDUSTRY OF PAINT AND VARNISH INDUSTRY OF UKRAINE

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ABSTRACT

This article discusses impact of internal factors on activities of enterprises of paint and varnish industry, shows and analyzes the dynamics of production, consumption and sales of products of the paint industry in Ukraine for the period 2013-2017, according to the State Statistics Service of Ukraine and the Association of Ukrainian manufacturers of paint and varnish products. Key factors affecting the performance of companies of paint and varnish industry for the period 2016-2018 was revealed. Forecast of further development of analyzed and adjacent industries for the next few periods was made on basis of predictions of Ministry of economic development and trade of Ukraine. It was also concluded and justified that the further researches of this topic are needed

Key words: *efficiency of enterprises activity, paint and varnish materials, water-dispersion paints, organic solvent based paints, varnish-paint industry, factors of influence, factors of influence on the efficiency of enterprises activity.*

ანოტაცია

სტატიაში განხილულია გარე ფაქტორების ზემოქმედება ლაქ-საღებავების მრეწველობის დარგის სანარმოების საქმიანობაზე, მოყვანილია და გაანალიზებულია ლაქ-საღებავების პროდუქტების წარმოების, მოხმარების და რეალიზაციის დინამიკა 2013-2017 წწ უკრაინის სტატისტიკის სახელმწიფო სამსახურისა და უკრაინის ლაქ-საღებავების მრეწველობის დარგის სანარმოების მწარმოებლების ასოციაციის მონაცემები, აღმოჩენილი და განხილული

იქნა ფაქტორები, რომლებიც მოქმედებენ სანარმოების საქმიანობის ეფექტურობაზე. წარმოდგენილია განსახილველი და მისი მომიჯნავე დარგების განვითარების პროგნოზი 2016-2018 წლებისათვის, რომელიც ეყრდნობა უკრაინის ვაჭრებისა და ეკონომიკური განვითარების სამინისტროს პროგნოზებს/ასაბუთებულია მოცემულ სფეროში შემდგომი კვლევების ჩატარების აუცილებლობა.

საკვანძო სიტყვები: *სანარმოს საქმიანობის ეფექტიანობა, ლაქ-საღებავი მასალები, საღებავები ორგანული გამზავებლების საფუძველზე, გავლენის ფაქტორები, გავლენის სანარმოს ეფექტურ საქმიანობაზე.*

INTRODUCTION

The paint and varnish manufacturing are one of the important components of the chemical industry of Ukraine. Dynamic changes in the country's economy and global trends in economic development have a significant impact on the work of chemical enterprises, therefore the identification of external factors of influence on the efficiency of the company's operations is relevant in modern conditions.

The purpose of the article is to analyze the current state of the paint and varnish industry and identify external factors that influence the performance of enterprises operating in this field of activity.

The objective of the article is to analyze raw materials security and dynamics of production output by enterprises of the industry.

The author's contribution to the research of the topic is an identification of the main factors that influence the performance of chemical enterprises; those factors are the raw material import dependence of the industry, low solvency of consumers and the overall amount of building works around the country nowadays.

Analysis of the market of paint and varnish materials in Ukraine is a complicated process due to certain reasons, such as: discrepancy in the definitions of the terms «paint and varnish materials» and «paint and varnish products», which affects the comparison of statistical data of production output and sales; the absence of certain criteria in the statistical data collection and processing for market analysis; a large amount of small companies, whose information concerning production output is difficult to track for statistical report; lingering publication periodicity of official data by the State Statistics Committee.

Empirical and theoretical research methods were used in the work.

The decent contribution in the topic's investigation was made by M.M. Yakubovskiy and V.I. Lyashchenko in their article [p.1;195] "Priority is given to the export-oriented production of nitrogen fertilizers, the raw material for which is the natural gas, which is purchased for import. At the same time, almost nothing is done for the development of such important for economics and society chemical substances such as paints with organic chemical compounds. According to the authors, this particular segment of paints can improve industrial performance, and therefore the performance of enterprises particularly. In one interview P. Bilyak, Director of the Color Studio Tikkurila network, commented on the state of the industry: «One of the world's trends in the development of the PVM market is the intercalation of water-soluble materials for consumers, not only for mineral foundations, but also for wood and metal. This trend has been relevant for several years now. « [p.10;41].Accordingly, water-dispersion paint is now prior mainly because of the strong demand in the market.

The main reason of enterprise effectiveness assessment is to identify companies further possible development which is determined by the results of a full analysis of financial and economic activities. Therefore, the most important objective of modern enterprise functioning is increasing its operational effectiveness through reasonable usage of internal reserves and systematic development of

the ways of improvement to operational effectiveness. The ways of improvement to operational effectiveness are used to describe as set of specific measures of improvement to enterprise's effectiveness [p.2;30].

The level of operational efficiency of the enterprise depends on external and internal factors.

For instance, external factors are state and social policy (the activities of legislature, legislation, financial instruments, economic standards), institutional mechanisms (research and training centers, institutions, associations), infrastructure (innovation funds, commercial banks, stock exchanges, information networks, transport, trade), structural changes in society and the economy (in technology, in scientific researches, in labor on the basis of education and qualifications).

Internal factors are divided into "solid" that are measurable and have physical parameters (technologies, equipment, materials, energy, products) and "soft" (organization and management system, employees, work methods, management style). Each company have to monitor the process of usage of internal factors through development and consistent implementation of its own program of improvement to business performance and also have to take into account the influence of external factors on this program[p.3].

In some literary sources the external environment is divided into factors of the general environment (factors of indirect influence) and operational environment (factors of direct influence). However, it is necessary to use a methodology that will allow taking into account the existing problems in the field of economic, technological and innovative nature of the enterprise's activities to study influencing factors of the environment. One of such methodologies is to structure the environmental factors of the macrolevel using the method T.E.M.P.L.E.S. (Technology, Economics, Market, Politics, Laws, Ecology, Society). This method has an advantage due to its structural form that covers a significant amount of environmental factors[p.3].

T.E.M.P.L.E.S. (Technology, Economics, Market, Politics, Laws, Ecology, Society) gives possibility to consider a group of issues related to the environment by dividing them into several subgroups for the corresponding definition and classification. Each of these factors is subjected to an appropriate analysis to find out what difficulties can arise when working in this field of

activity and what opportunities are opened there. These reasons are convenient to analyze taking into account the various (mainly long-term and medium-term) prospects, when it is necessary to predict what changes the company expects in the future [p.4].

DATA:

Let's have a look upon the influence of external factors on the performance of enterprises in the market of paints

and varnishes materials (PVM) of Ukraine. According to the State Statistics Service of Ukraine for the period 2013-2017 indicators of sold products produced from their own raw materials are reflected in Fig. 1 [p. 5; 41] [p. 6; 45] [p. 7; 44] [p. 8; 39-40] [p. 9; 42], indicators net sales of PVM in Ukraine for the period 2013-2017 according to the Association of Ukrainian Manufacturers of Paints and Varnishes, are shown in fig. 2 [p.10;39].

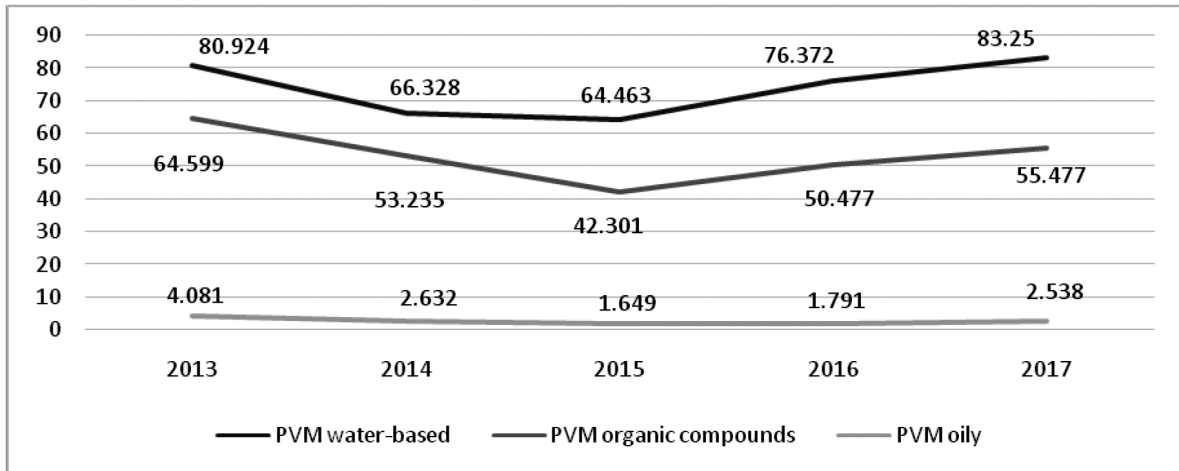


Fig. 1 – Sold PVM products produced from their own raw materials in Ukraine for the period 2013-2017, thousand tons

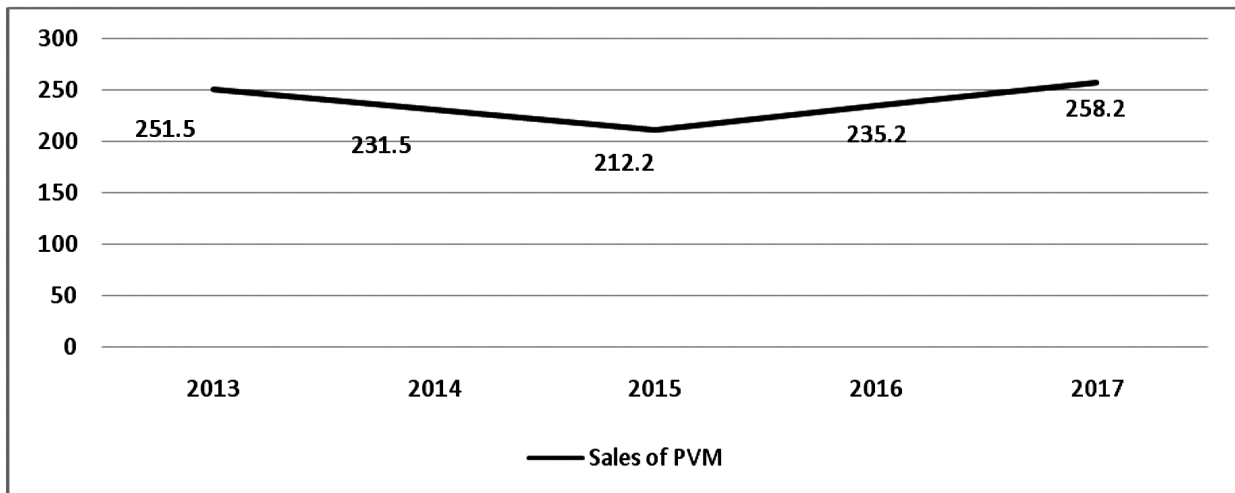


Fig. 2- Sales of PVM in Ukraine for the period 2013-2017, thousand tons

After considering Fig. 1 and Fig. 2 we have noticed that about 42% of the raw materials used to manufacture paint and varnish products are imported, which indicates a rather high-altitude import dependence of the industry in terms

of providing raw materials. Consider the dynamics of the consumption of paint in Ukraine for the period 2014-2017 [p.10;39].

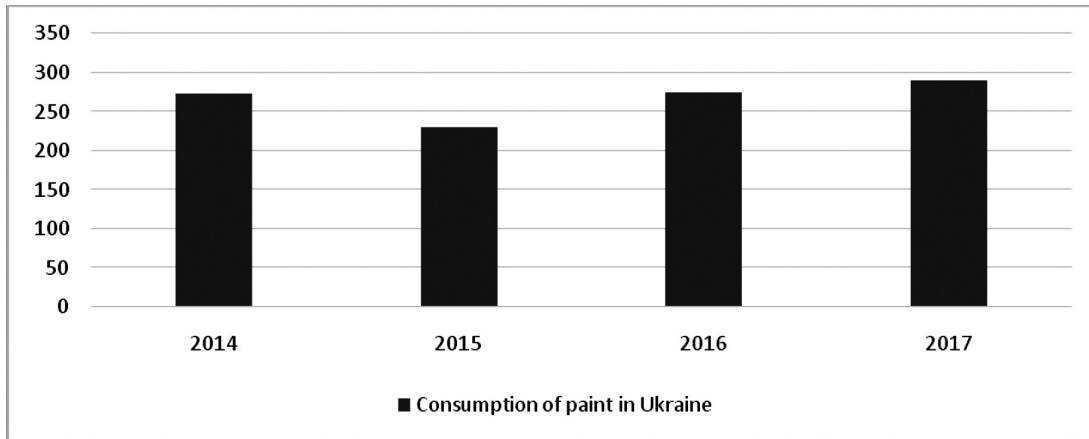


Fig. 3 – Consumption of paint in Ukraine for the period 2014-2017, thousand tons

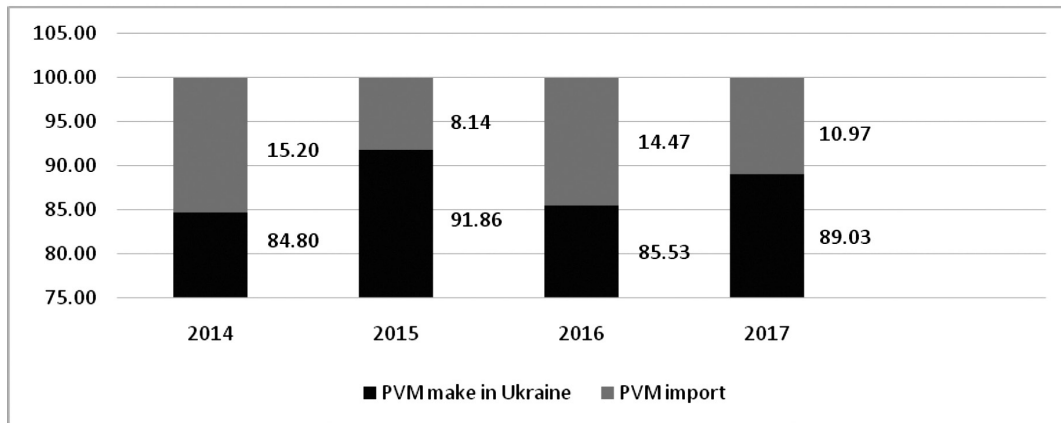


Fig. 4 – Consumption of paint in Ukraine for the period 2014-2017, %

Having considered the consumption of PVM for the period 2014-2017, we have noted the opposite situation in comparison with the raw material supply, dynamics over analyzed period in fig. 4 indicated that the vast majority

of consumed PVM products are domestically produced in Ukraine.

Consider the volume of PVM products in the cost measurement. [p.5;41] [p.6;45] [p.7;44] [p.8;39-40] [p.9;42].

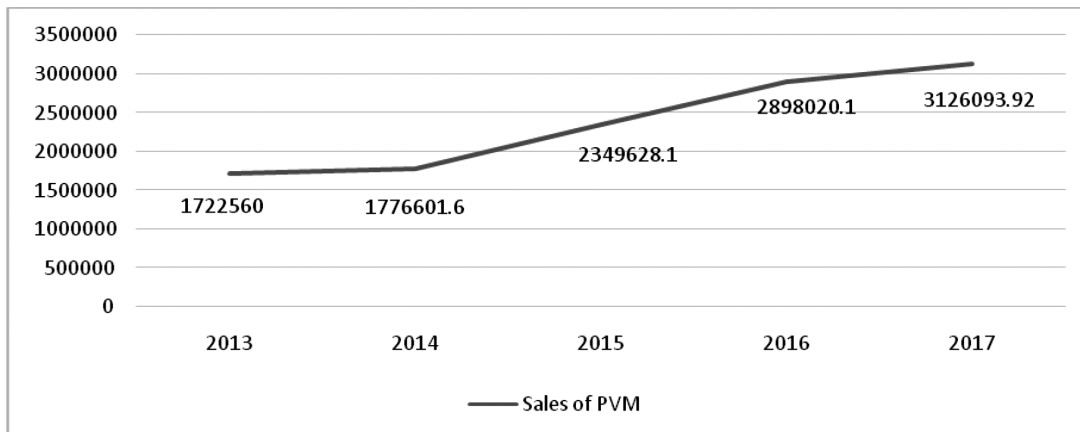


Fig. 5 – Sales of PVM in Ukraine for the period 2013-2017, thousand hryvnias

After analyzing expansion of the market of paint and varnish products for the period 2013-2017. according to fig. 2, we can highlight 2014-2015 as the crisis period, accompanied by amount recession of products produced and consumed, 2016 was a period of recovery of the industry and 2017 was a growth period featured by a greater production output than the pre-crisis period.

Since about 42% of the raw materials used in the manufacture of PVM are imported, it is worth considering the dynamics of production output in terms of value in a freely convertible currency, for example, in USA dollars. Exchange rate is calculated as an arithmetic average between the NBU rates as at January 1 of the base year and as at January 1 of the next year (Calculated exchange rate is 27.629 UAH = 1 USD).

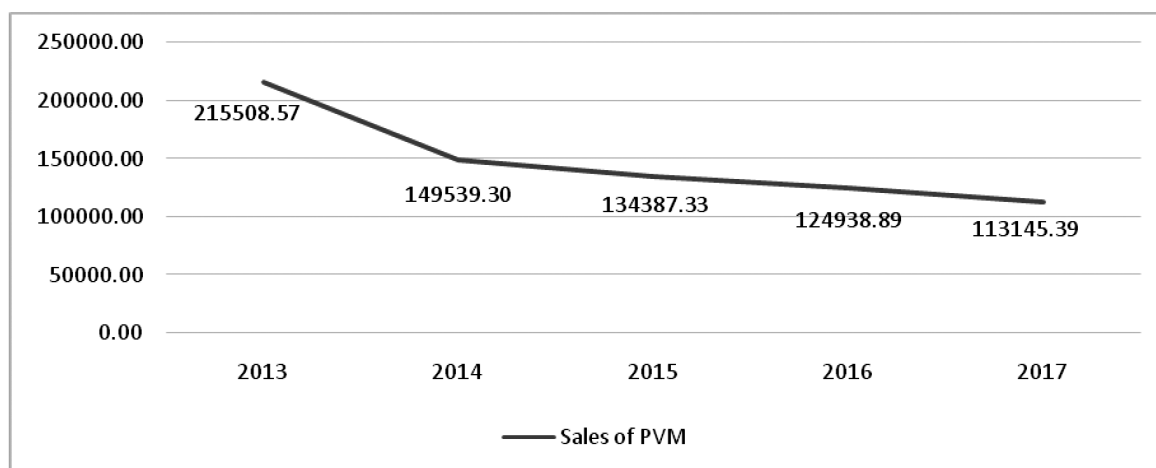


Fig. 6 – Sales of PVM in Ukraine for the period 2013-2017, thousand dollars USA

According to fig. 5 and fig. 6 we should note that according to the results the production output in terms of value for the analyzed period has gradually increased, however, recalculating net product value into USA dollars have shown a reverse trend caused by the devaluation of the hryvnia over the analyzed period by 253.8% comparing to USA dollars. The significant devaluation rate has directly proportional affect on the final result of companies of chemical industry, since the cost of the raw materials depends on the foreign currency rate which is used to make settlements with the counterpart from another country.

EMPIRICAL RESULTS

Among the factors that determined the development of the domestic paint and varnish market in 2016 are:

- economic recovery. By the end of 2016 Ukraine’s GDP had grown by 1.8%. In addition, the growth of industrial production by the end of the year was 2.4%.
- amount of construction works had increased by 13.1% compared to 2015, assuming that this factor had shown the decrease for 12.3% in 2015 comparing to 2014\$

- price increase for raw materials for the production of paint and varnish products;
- low solvency of consumers;
- gradual replacement of water-dispersion coatings in the decorative segment.

The PVM market in 2016 was notable for growth of varnishes and paints production output in size by 10%, while the market growth rate in terms of value was higher than in terms of volume, which is primarily due to the increase in prices for imported raw materials in hryvnia equivalent, which is negative factor due to the low solvency of the consumer.

Among the factors affecting the PVM enterprises in 2017 were low effective demand, bank loan unavailability, problems in commodity markets and so on.

After analyzing the financial market for the supply of credit funds as at October 2018, Ukrainian banks offer loans with minimum interest rate about 17.87% (Oschadbank), the average interest rate is about 21.59% per annum in UAH [p.11]. In neighboring Poland the average commercial loan interest rate is 9.84% [p.12].

The chemical industry of Ukraine, unfortunately, is import-dependent. Moreover, since 2014 trade relations with one of the largest producers of titanium dioxide,

Crimean Titan, have been terminated, which in turn have led domestic companies in search of a new supplier and have increased overall import of raw materials by 42%. Thus, for the analyzed period the growth of total production output amounted 9.1%, water dispersion coatings output increased by 10%, alkyd coatings by 14.5%.

Alongside with the territorial changes within Ukraine in 2017 the cost of raw materials for the production of coatings on the world market significantly increased, some of them by 2-3 times. This is due to the intensive development of the Asian and Pacific regions. Consumption of paint have increased in those regions and, accordingly, the law of the free market has worked out: if demand is high the price grows until the market becomes saturated. In addition, negative factors influence the growth of prices on the world market as well. For instance, a large titanium dioxide plant has burnt in Finland [p.13]. As a result, there was a certain deficiency of titanium dioxide, to which raw materials market has immediately responded with an increase in the price of this component.

CONCLUSION

Also, 2017 was notable for an increase of tax burden on PVM-producing enterprises, in which products are included import raw materials. Therefore, according to the explanation of the State Fiscal Service of Ukraine from 01/04/2016 for the excise tax on fuel sales as at January 1, 2017: «The issue of taxation of excise tax from retail at a rate of EUR 0,042 per each liter of sold (disposed) commodity of mixed solvents, which are classified by codes 2710 12 25 00 and 3814 00 90 90 UKTZED, if they are sold through retail trade» The list of mixed solvents includes a significant number of components used in the manufacture of PVM [p.14]. So, in addition to taxation during the customs clearance of raw materials, enterprises must pay an additional excise tax, which in turn raises the cost of production and the selling price. Considering the low solvency of customers, this factor causes reduction

of profit gained by company, reduces its final economic effect from doing business.

According to of economic and social development forecast in Ukraine for 2019-2021, which was announced in July by the Ministry of Economic Development, according to the baseline scenario, in 2019 GDP is projected at 3% with inflation (December to December of the previous year) at 7%, and by 2020 - economic growth at level of 4% with inflation of 5%. According to analysts, the real estate and construction market will grow by 7% annually [p.15; 56].

Based on the foregoing forecast of the Ministry of Economic Development, we believe that the PVM enterprises in the industry would also have a positive trend in production output over the next 2 years, which is a positive factor.

So, analyzing the PVM market of Ukraine for the period 2013-2017 We have concluded that the main factors negatively affecting the performance of enterprises in this industry were the crisis in 2014–2015, the dissolution of trade relations with the Crimean Titan, the devaluation of the hryvnia and overwhelming tax pressure. Among the positive factors of external influence we have highlighted the economic recovery in 2016-2017 and the gradual recovery of the economy from the crisis, the development of the construction industry as this industry is the main consumer of PVM products. In accordance with the Ministry of Economic Development forecast for economic development in the upcoming years, we have noted that the PVM enterprises in the industry will also have a positive trend in production output over the next 2 years. Taking into account the rapid changes in the country's economy, as well as global development trends enterprise's key efficiency factors of enterprises might change, therefore, analysis of indicators, their significance assessment and identification of new factors of influence require further research.

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