Advances in Business-Related Scientific Research Journal (ABSRJ)
Volume 6 (2015), Number 1

ISSN 1855-931X

HISTORICAL EFFECT IN THE FOOD ENTERPRISES OF UKRAINE

Olena Melikh

Odessa National Academy of Food Technologies, Department of Economics of Industry

Ukraine

olena_melikh@ukr.net

Abstract

The problems of activity of the Ukrainian food enterprises to strong competitive conditions and production in the article are described. The functionality of the other food businesses for identifying economic hysteresis-effect is analyzed.

Keywords: food enterprises, sustainable development, economic hysteresis, efficiency

INTRODUCTION

The problems of producing goods at affordable prices for consumers are distinctive in every business. Some fields can stay in a rather stable condition, while others could be at the edge of extinction. Is it all about innovations? It is generally known that in order to reach innovation-based development one should at least have: financing sources, innovative thinking of the parties concerned (innovators, investors, consumers or government) and the access to the information about the world's progress achievements. The state of the said factors is specific for each field of the national economy of every country. Let us consider food industry, which is the most vital for the population wellbeing and living.

The implementation of innovations in Ukraine has been cumbersome for more than 20 years. In the studies of domestic scientists Yatsenko (2003), Heier (2006), Kholod (2008), Kholod (2010) and others, the emphasis is placed on government investments. However, the members countries of the Organization for Economic Co-operation and Development also have the deficiency of government incentives for innovational activity: up to 0.35 % of GDP of a country (maximum 0.21 % of GDP in Canada, indirect support of the government via tax remissions for innovational businesses, 0.17 % of GDP in the USA, direct support of the government via scientific researches financing). As the innovations in food industry did not get any funding from the government in 2008 – 2014 (Daineko and Sheludko, 2014), there is no question of large-scale government support of the innovative projects in Ukraine in the period ahead.

It is customary to assume that the prices for the processed products go down when the volumes of raw material resources within the country go up, in other words, it is profitable to process own raw material, reducing the level of import dependence at the same time. Is it really so in Ukraine?

THE OVERVIEW OF PRODUCTION AND ECONOMIC ACTIVITY OF FOOD ENTERPRISES

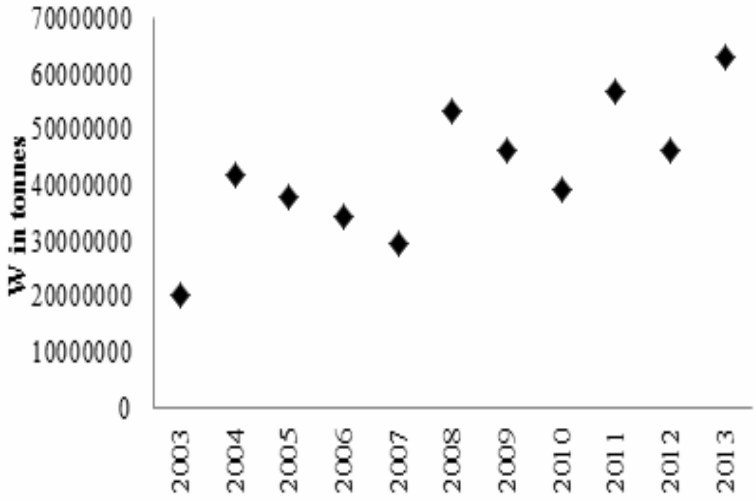
Here and below are used in the calculations and the chart data of State Statistics Service of Ukraine.

The production of pasta technically and economically depends on the flour suppliers, as flour is the main component. The secure on-time deliveries of flour of the strictly defined quality are essential for pasta goods. Whereas, the production of flour depends on the volume of wheat production (as the most popular raw material). Let us view the matter of Ukrainian pasta production in the aspect of continuity of the chain: wheat (W) – flour (F) – pasta (P) (Figures 1-3).

The Ukrainian ranking by per capita wheat production is close to Germany, Great Britain and Russia. In recent years, the average yield of wheat in Great Britain amounts to 77.8 centner per hectare, in Australia – 13 centner/ha, and in Ukraine and Argentina – about 25 centner/ha. China, India, Russia and the USA have the biggest areas sown to wheat (20 – 25 million hectares), the half of the amount is in Australia (about 12 million hectares), Canada has even less, Ukraine, Argentina and France follow after them (5.3 – 6 million hectares), then – Germany and Great Britain. The territory of Ukraine is favorably located in several climate zones, and that facilitates growing of all kinds of grain crops and the formation of export potential.

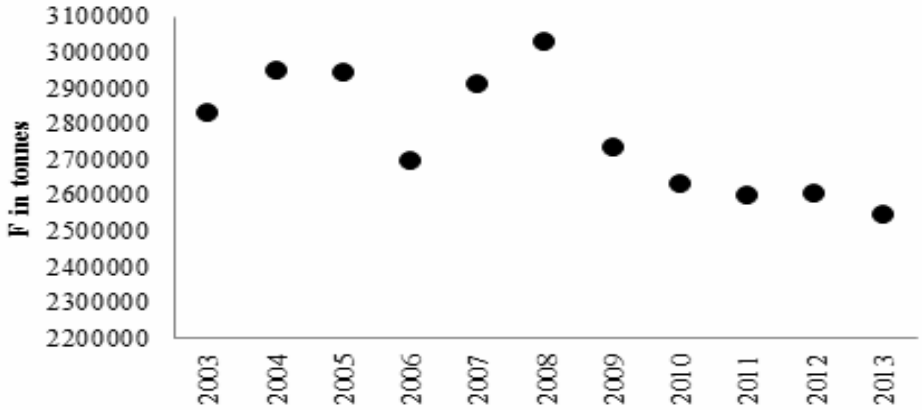
Alongside this, there are for about 600 flour milling enterprises in Ukraine. Flour production capacity keeps pace with 11 million tn, and that is much more than needed for internal consumption. Furthermore, major flour milling enterprises manufacture about 70 % of general flour production.

Figure 1: The production of grain crops in Ukraine



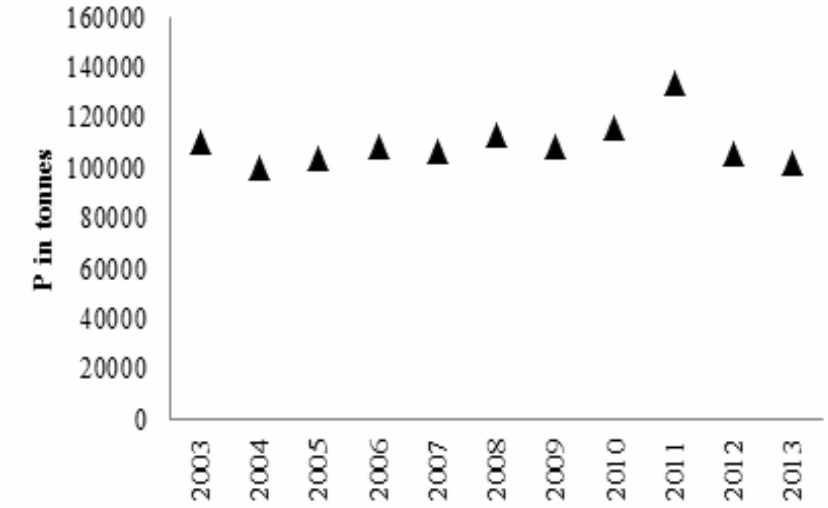
Being in the list of the major grain crops exporters, Ukraine sells less than 5 % of its flour on the world market nowadays. Ukraine does not belong to I.P.O. (International Paste Organization) regarding pasta goods export for a range of reasons. One of them is the production of non-durum wheat pasta (whereas Italy, USA, Brazil, Turkey and other countries use durum wheat). This significantly reduces the strategic progress of the enterprises economy.

Figure 2: The production of wheat flour in Ukraine



Ukrainian pasta production capacity is represented by 71 enterprises that produce up to 30 tons of pasta per day. The average level of the wear of the main assets of the enterprises is 65 %. Decline in prices for production is logical when supply is increasing, provided that other conditions of market economic management are fixed. In Ukraine, the change of “other conditions” (as employment, population income, number of population) worsens the state of economy. That is why economic hysteresis makes possible the non-concurrence of tendencies in resource potential and manufactures appliances of pasta production.

Figure 3: Pasta goods production in Ukraine



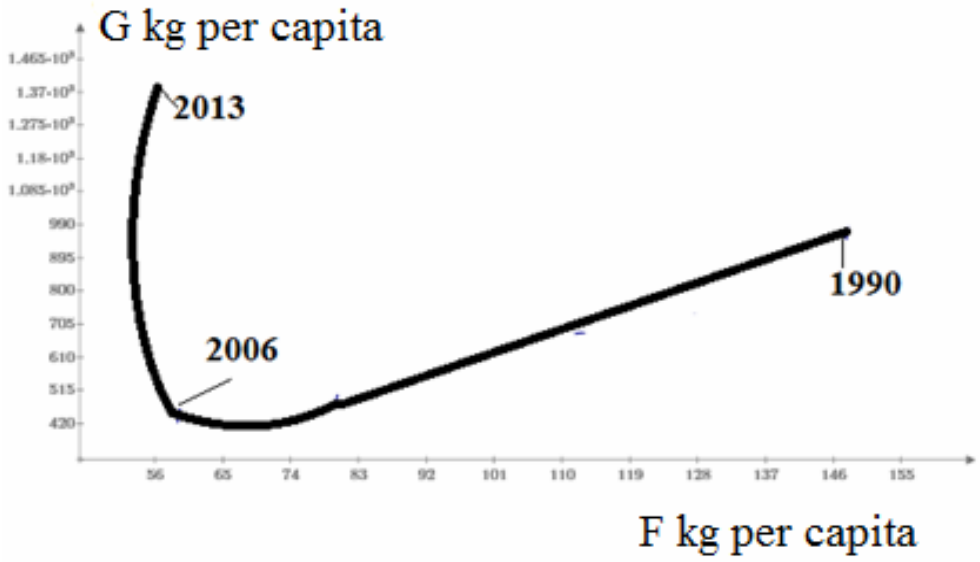
THE IDENTIFYING ECONOMIC HYSTERESIS-EFFECT

This phenomenon means the response of the system to the influence on it, at the same time, the delay of the results of the influence on the system is largely defined by the previous history of the system development. Hysteresis (Elster, 1976, Dixit, 1992, Cross, 1993) is intrinsic to almost all systems, including economic and commercial ones. Food industry is no exception, as it is also a system.

Let us consider the combination of per capita agricultural raw material production and final product of the food enterprises. To plot a graph, let the ordinate axis denote the annual per capita production of raw material (grain, flour, sunflower, meat), and let the abscissa axis denote the per capita production of flour, pasta, sunflower oil and sausage goods. The assumed combination of statistical data forms so called hysteresis “loop”.

Consider next the combination of per capita production of grain and flour (Figure 4).

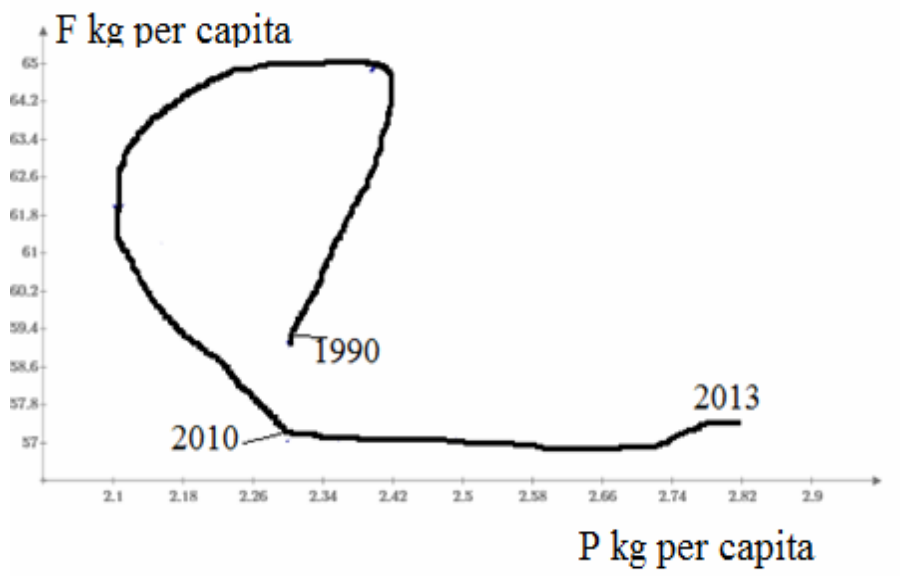
Figure 4: Hysteresis loop (approx.) grain-processing industry, where G – per capita production of grains, F – per capita production of flour



As we see on Figure 4, no significant increase in flour volumes has been observed, although the volumes of grain increased after 2006. There is a wide range of reasons for that: the obsolescence of the technical assets of the enterprises, population to the consuming preferences to vegetables and crops (during the period, the yield of this agricultural raw material significantly increased in Ukraine), the instability of the quality of grain and, consequently, of flour.

As it is seen at Figure 5, the production of pasta goods has slightly increased in recent years, and the level of flour production was low.

Figure 5: Hysteresis loop (approx.) of the of pasta goods enterprises, where F – per capita production of flour, P – per capita production of pasta

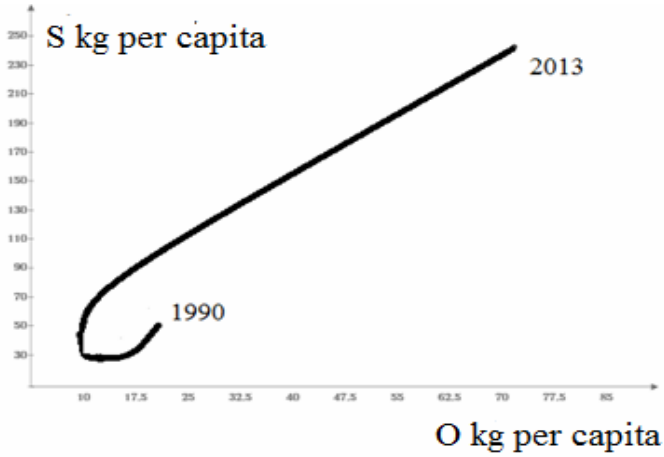


The main reason is the following. Import product makes up for about a quarter of the pasta goods market of Ukraine, and its volumes were increasing year after year. The dynamics of imported pasta goods volumes was positive up to 2013; however, according to the results of the first half of 2014, the number of import production has decreased by 4 %, as compared with the first half of 2013.

Conversely, the volume of production in Ukraine has increased by 2.8 % according to the results of the beginning of 2014. The Russian Federation is the main consumer of pasta goods of Ukrainian producers on the international market, consuming 38 % of the general export volume of products according to the results of the beginning of 2014. Almost one third of Ukrainian pasta goods is consumed by Moldova, namely 32 %, and one third goes to the United Arab Emirates, 20.8 %. Thus, more than 90 % of Ukrainian export of pasta goods is supplied to three countries; it is the evidence of poor diversification of supplies of the said production and accompanying risks. For instance, in case of the cancellation of the supplies of Ukrainian products to Russia in the context of complicated military and political situation, the search for partners, for instance, in African countries, can somehow reduce the loss because of business interruption.

Let us compare the present WFPE situation of the enterprises, engaged in successful business of sunflower oil production (Figure 6) with the enterprises, engaged in less successful (from the position of resource potential regress) meat-processing industry (Figure 7).

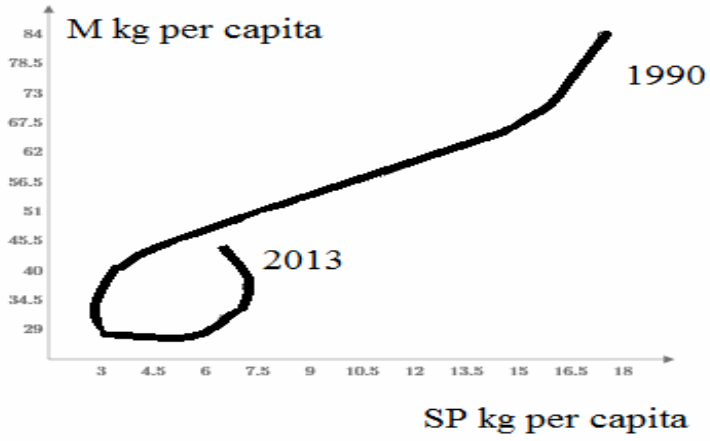
Figure 6: Hysteresis loop (approx.) of the sunflower oil production enterprises, where S – per capita production of sunflower seed, O – per capita production of vegetable oil



Economic and managerial analysis of the enterprises that produce vegetable oil and animal fat has shown that two thirds of them were established in the period after the breakup of the USSR. All these enterprises are medium and big by the number of employees. They were established or underwent complete reconstruction and re-equipment in the period when the hysteresis loop began to form according to Figure 6 (after 1994). Thus, for about 70 % of the said economic objects strengthened their positions in the period of positive changes in the field. Natural and climatic conditions in Ukraine and the technical potentials of the enterprises played in favor.

Economic and managerial analysis of meat and meat goods production enterprises has shown that the majority of them were created in the period of the breakup of the USSR; all the enterprises are medium and big by the number of employees. In the period when the loop of hysteresis began to form according to Figure 7 (after 2001), a number of enterprises were established, which became bankrupt, were reopened in 2007, and were completely re-equipped in 2009. These enterprises have undergone 34 acts of reconstruction, enlargement and technical re-equipment over the period of their existence.

Figure 7: Hysteresis loop of meat-processing industry, where M – per capita production of meat, SP – per capita production of sausage products



CONCLUSIONS

The examples of the development of Ukrainian food industry allow making several conclusions: the effect of economic hysteresis is intrinsic to the majority of processing industries. Hysteresis loop, made by an economic system, defines the direction and stability of business development. The sustainability is most noticeable in fat and oil industry; the production of sunflower oil is export-oriented and the competition is rather tough, but the business has been sustainable since 1994.

Nowadays, WFPE of Ukraine is the most unsustainable considering hysteresis-effect: the hysteresis loop has not been completed during the period of the independent economic management of the country. The competition is tough enough; however, new leaders continue to appear on the market. High-scale structural changes in the field management and production are not observed. Pasta products business is particularly problematic, as the leaders here have not been differentiated by quality and quantity yet. That is, all the significant changes in this field are in the prospects still, including the changes, which should improve the quality of the products; otherwise they could not withstand the competition of European goods.

IMPLICATIONS

The implementation of new strategies for the enterprises that belong to the fields of possible innovation-driven growth (WFPE also fits in this category), in our point of view, depends on the innovative thinking of the managerial stuff.

The analysis of the majority of business entities of different capacities and territory locations in Ukraine, engaged in grain-processing, flour milling, fat and oil production, meat-processing and pasta production industries, has been carried out. The results are the following: the changes of economic strategies elements occur most often in grain-processing industry (5 times within 1999 – 2013); however, the general conception of the entities development did not changed within the analyzed period, the changes of development concepts and appearance of innovations in products, technology or marketing in fat and oil production and flour milling industries happened three times a year on average; the fundamental changes of technologies, equipment, logistics, marketing and management has been observed in pasta production industry not more than two times for the last 10 years. It seems paradoxical that innovations are implemented more often at the enterprises with regressive resource potential (according to the analysis of 32 business entities); on average, 5 – 6 innovations were implemented at meat production enterprises for the last 6 years. Thus, stagnation and downswing of the agriculture give impulse to the innovative activity of processers and investors.

REFERENCES

Cross, R. (1993). On the Foundation of Hysteresis in Economic Systems. Economics and Philosophy, 53-74.

Daineko, L. V., & Sheludko, E. I. (2014). Innovative development and condition of the material-technical base in the food industry. International. Business Forum, Kyev, 42-44.

Dixit, A. (1992). Investment and Hysteresis. Journal of Economic Perspectives, 107-137.

Elster, J. A. (1976). Note on Hysteresis in Social Sciences. Synthese, 371-91.

Heier, H. V. (2006). Managing innovation competition. Donetsk: Nord-Press, 27-29.

Kholod, B. I. (2008). Fundamentals of competitive advantages and innovative development. Dnepropetrovsk: Monolith, 5-17.

Kholod, S. B. (2010). The investment potential in the realization of innovative projects Dnepropetrovsk: Monolith, 21-23.

Mudrak, T., Wagenberg, A., & Wubben, E. Innovation process and innovativeness of facility management organizations. Facilities, *23*, Emeraldinsight, 103-108.

Yatsenko, V. N. (2003). Analysis and strategy of development of agrarian sector of Ukraine. Cherkassy: ChSTU, 14-16.