Trakia Journal of Sciences, Vol. 9, Suppl. 2, pp 73-78, 2011

Available online at:
htto://www. uni-sz.bg

ISSN 1313-7069 (print)
ISSN 1313-3551 (online)

REGIONAL ASPECTS OF FOOD AND BEVERAGE INDUSTRY'S DYNAMIC IN BULGARIA

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ABSTRACT

Industrial growth is one of possible scenarios for industry development. The dynamic of this growth, especially dynamics of food and beverage production, is a good indicator for future business development. The main aim of the paper is to present food and beverage's growth potential for Bulgaria. In the paper we claim that the problem is not deeply studied and only a few economists do a research on it after Bulgarian accession to the EU. Thus, we use comparative analysis as appropriate methods for research. Our findings are based on microeconomic statistic data. The analysis reveals different factors that influenced Bulgarian food and beverage's industrial growth as before and as after accession to the European Union. The assessment of the endogenous and exogenous factors determines the key role of innovation, R&D and human resource development, and presents the interrelation between *innovations - investments - food industry growth.* According to this analysis, we find out the dynamic of food and beverage industry growth for Bulgaria and respectively the change of dynamic of food production growth at regional level. Some important recommendations for increasing the growth potential of food industry in Bulgaria are made as conclusion.

Key **words:** industry development, Bulgaria, food and industry production, innovations and investments

INTRODUCTION

The problem with the industry growth has been enlarging its popularity since the beginning of the overall economic and financial crisis in 2008. The question to be solved is to find the relation between economic development and industry growth.

To study if a food industry is perspective issue gives us an opportunity to search about some industry development problems. The hypothesis is that food consumption increase in crises times in other equal conditions.

So, does the Bulgarian food industry change? To find out some basic answers we need to define the term of industry dynamic.

The most common definitions treats that the industrial dynamic is a result of the increasing ability to enforce the industry evolution as the Forrester (1-2) stated. Assuming this evolutionary view Kraft (3) explain that industrial dynamics does not only just describe the current industrial structure, but also gives a point of view over most common market driven factors that change economic structures over time.

Thus, industrial dynamic is a direct result of industry growth rate in terms that economic growth is continuously enlargement of present and potential markets at micro, mezzo and macro level (4).

The systemic characteristics of industrial growth give us an opportunity to analyze these forces that have driven the industrial dynamic to be move up. According to this we perceive that basic determinants of industrial development are follows: R&D expenditures and innovation level (5-6).

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STATE OF FOOD INDUSTRY IN BULGARIA

For understanding development of Food Industry we had to find some basic factors that drive the industry to change. Thus, the dynamic analysis covers factor as follows:

- The change of consumers' needs. We can find that consumers have changed their buying preferences for the last decade. Now they buy more high quality products at higher prices instead of lot of cheap low quality ones.
- The change of technological requirements. The long-life society needs have been changing. The tendency is to produce more green products than ever they have produced.

The role of the factors above is based on the food and beverage features:

- Food manufacturing depends on quality incoming raw materials from agriculture. Thus, the modification of agricultural structures in Bulgaria in recent years has a negative effect over the food production. The negative effect is connected not only to the worsen quality but to a continuous decline in the volume of manufactured agricultural products according to the Ministry of Agriculture and Forestry (MAF).
- The food and beverage industry in Bulgaria is characterized with a large number of small firms. This size structure is directly connected with growth potential of the enterprises and the industry as whole. As a final result, due to the relatively low financial barrier to entry in the sector, there are many small business representatives that produce low quality food. As an example, nearly 70% of food producers were threatened for exiting the industry due a failure of the newer and higher standards of product quality at the end of 2006. According to this, many food producers (especially those producing: milk and milk products; meat and meet products; miscellaneous etc.) were forced to implement quality management standards as ISO 9000 and HACCP (7).

According to the change of the factors above, we can easily find some general economic framework problems for producing food and beverage as follows:

- Poor co-operation with agricultural suppliers (farmers respectively);
- Deteriorate supplies of seasonal and perishable agricultural products;
- Absence of sufficient long term investments in food and beverage development;
- Poor co-operation with firms in other interrelated sectors of the industry (clusters);
- Increasing requirements of quality standards and environmental protection.

How does food industry change in crisis conditions?

To find the role of the food industry in Bulgarian industry's growth we need to compare the change of food industry growth at the European level **(Figure 1).**

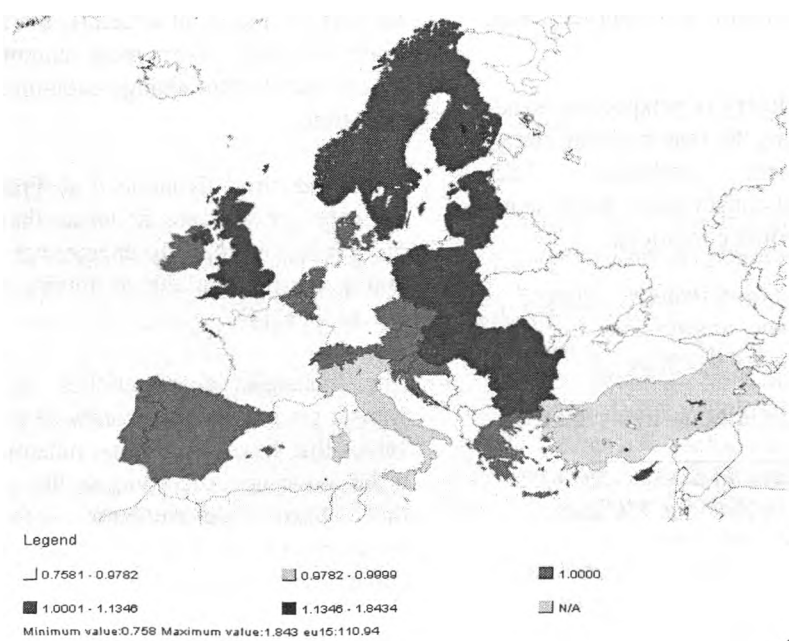


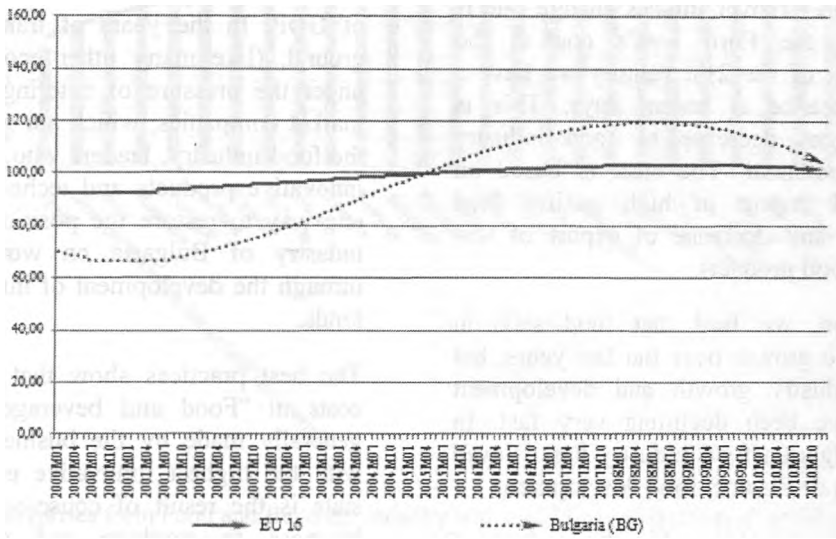
Figure 1. Turnover of Food, beverages and tobacco manufacture comparison with EU 16 (2005=100)

The picture gives the following conclusions:

- Food industry growth is preference observed in Eastern countries (Bulgaria, Lithuania, Latvia, and Romania). In most of them the family food expenses are very high. So the overall development is transferred to the food growth.
- The old EU members as the CEU countries show a very slight dynamic development transfer. Thus the overall change of economic growth rate is not different with the food growth rate.

According to this the food growth in Bulgarian economy has to be perceived as an illusory one than the real development at all.

The statement above could be finding in the next picture (Figure 2).



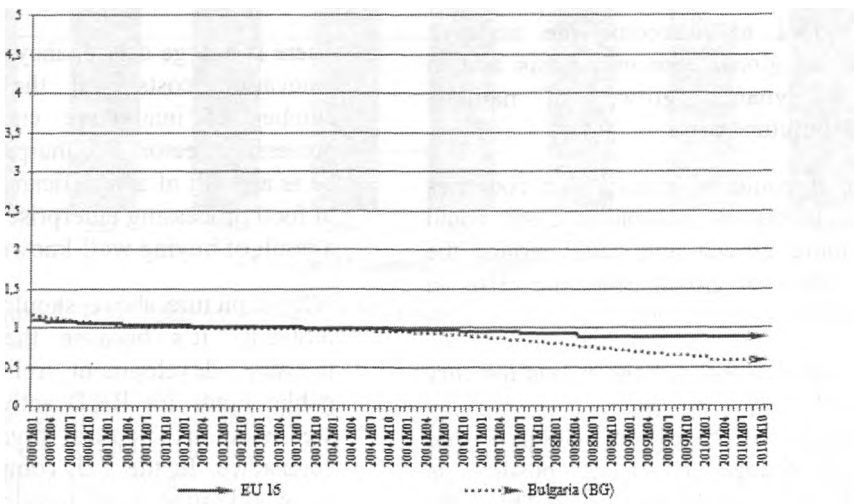
Source: (8) and our calculations

Figure 2. Production Indices of Manufacture of food products

The next conclusions could be made:

- European Union old members have the smallest change in their production indices. They are very close to 100 % line. So there is a very small change of food production in the Euro area.
- Bulgaria shows bigger differentiation of its food production growth - two times between the lowest and the highest point of production. The change of growth indices has been sloping down since the mid-2009.

The final point of view gives the change of tumover/production indices rate (Figure 3).



Source: (8) and our calculations

Figure 3. Production/Tumover indices of Manufacture of food products and beverages

The picture allows confirming the basic hypothesis:

- As it is expected Euro zone countries have a very similar trend of production and the turnover indices change. Thus, the trend of Production/Tumover indices is very close to 1.00. Therefore these countries sell at the same level what they had produced.
- It's not surprisingly that Bulgarian picture is strongly declining. So, even though the production/tumover indices change rate is close to the Euro area's one at the beginning of the 21st century we have a big difference at recent days. This is situation of decrease of food industry growth potential. The state is based on increased import of high quality food products and decrease of export of low quality food products.

In conclusion, we find that food sells in Bulgaria have growth over the last years, but the food industry growth and development potential have been declining very fast. In addition, Bulgarian food industry has delayed from the overall EU area food development.

The explanation could be done by analysis of some basic determinants of industrial growth of food sector in Bulgaria.

ANALYSIS OF BASIC DETERMINANTS OF INDUSTRIAL GROWTH IN FOOD INDUSTRY IN BULGARIA

Innovations have become a key factor for industrial development. Accepting the evolutionary approach, the innovations are directly pointed to the competitiveness improvement and industrial growth at all. In addition, the innovation costs proved a successful tool to overcome the negative effects of the global economic crisis and to achieve a dynamic growth of national economies in future terms.

Therefore, it could be argued that countries with high levels of innovation costs could generate more growth and could reduce the negative effects of global economic crisis in the nest years.

That is the level of innovations in food industry in Bulgaria?

In the years of transition, Bulgaria has continuously changed its priority position on the sectors of national economy. Thus, the development priorities had been changed from construction and tourism to agriculture and transport. Thus, Bulgarian governments have no consensus on the development of the national economy. In addition, food industry had never been found as a high development industry sector.

Retrospective analysis shows that in the years before the transition one of the most developed sectors of the national economy was the sector of the food and beverage industry. This sector was heavily export-oriented and a large share of GDP. In the years of transition, it loses ground, (like many other economic sectors) under the pressure of entering the Bulgarian market companies, which are world leaders in the food industry, leaders who rely heavily on innovative products and technologies. Today, one way to restore the positions of the food industry of Bulgaria on world markets is through the development of innovations of all kinds.

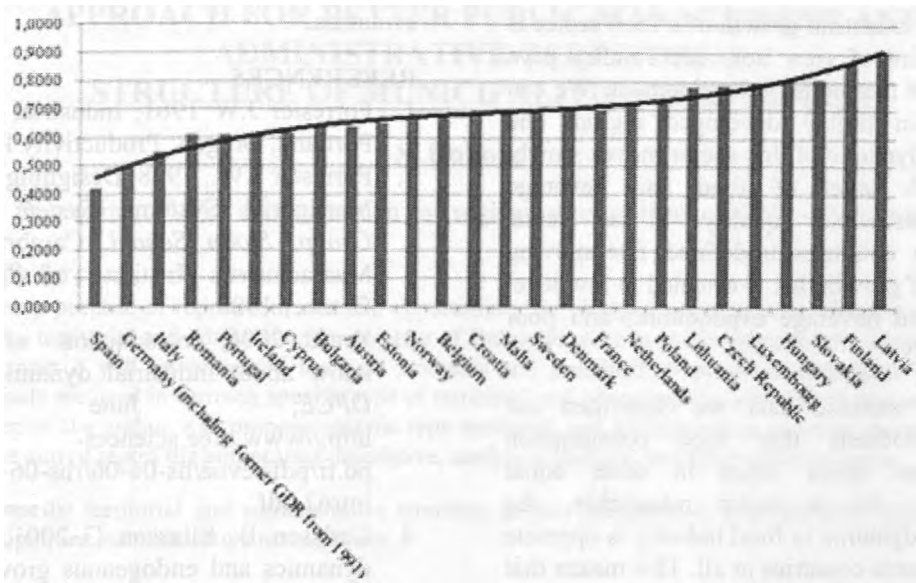
The best practices show that the innovation costs in "Food and beverage industry" are generally made by the business in countries with the highest innovative economies. This state is the result of conscious needs of the business to produce and offer products, services and technologies with high added value. Thus these companies generate food industry.

Interesting is the fact that by data on innovation (product, technology, marketing) embedded in the enterprises of food industry, Bulgaria does not stand bad at all against the pan-European trends. Although Bulgaria is not at leading positions for the EU, it is arranged to such proven leaders in innovation countries such as Germany, Italy, Spain **(Figure 4).**

There is a large discrepancy between the small innovation costs and the relatively large number of innovative enterprises in food processing sector. So, the picture above could be as a result of a significantly smaller number of food processing enterprises in Bulgaria or as a result of buying well-known innovations.

Why it picture above should be perceive as a problem? It's because the Bulgarian food industry development relies primarily on public funds for R&D activities. Innovations are made in scientific organizations outside companies. In the EU, companies make a lot more investment to develop new products, services and technologies, than the state (government). According to this indicator

Bulgaria has again lagging position. It ranks among the last places in the EU. In the country, R&D expenditure as % of total government expenditure has a relatively low rate (Figure 5.). This indicates that companies from food and beverage sector have not adopted the innovation as a necessity and a factor for growth.



Source: (8)

Figure 4. Enterprises from Food and Beverage industry with technological innovation (product, process, marketing innovation)

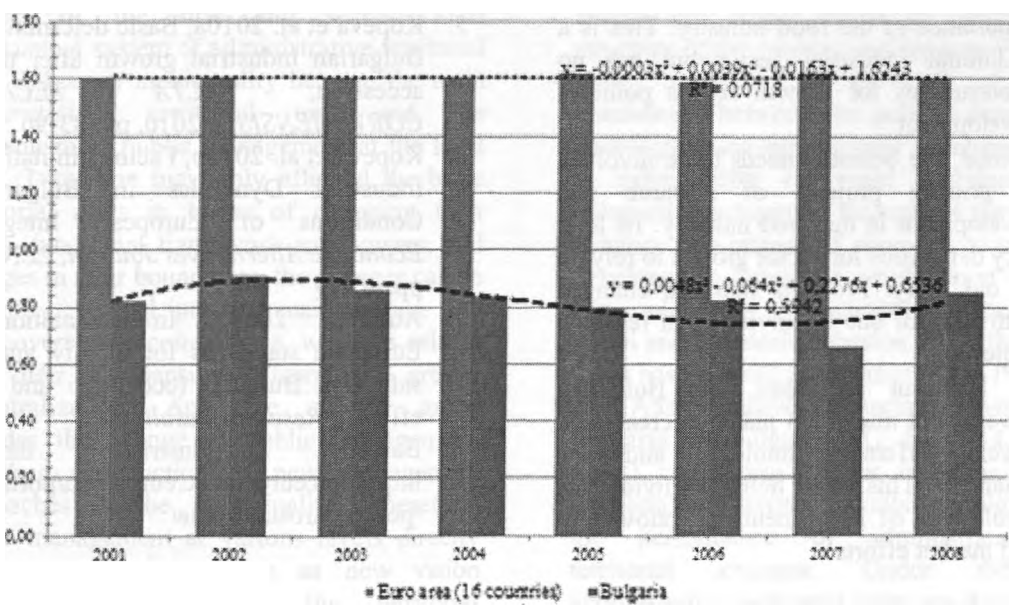


Figure 5. Total R&D expenditure as % of total general government expenditure

In conclusion, the picture in the innovative development of the country is not very optimistic. Bulgarian economy and food industry sector have very low potential for innovation. Production is mainly oriented to a low value added one. The competitive advantages of firms are very limited. Backwardness of the sector is significant. If you do not take real action to stimulate and motivate the innovation, the sector will fail to recover its leading position in the national economy.

CONCLUSIONS

Industrial dynamic is a good indicator for development opportunities of one country. It gives not just current situation but the gap between what we want and what we can!

Analyzing industrial growth of a food sector is a good point of view how one country pays attention of the industry development. We can see that in highly developed regions the industrial dynamic of this sector moves slowly at a high level of food and beverage expenditures and quality. Visa versa, developing countries undefined fast moving dynamic of growth that is oriented to low level of food and beverage expenditures and poor food quality.

Analyzing statistic data we confirmed our basic hypothesis that food consumption increase in crises times in other equal conditions. As it looks reasonable, the Bulgarian dynamic in food industry is opposite to the EU area countries at all. This means that Bulgarian food industry has lost its competitive advantage of low-cost products and has no good perspectives for growth at this point.

What we can recommend:

- First of all Bulgaria needs to prioritized the importance of the food industry. This is a traditional industrial sector but has no opportunities for growth at this point of development.
- Second, the business needs to be involved in priority projects of research and development in the food industry. Its look very dangerous for sector growth to rely on its old glory. Products must be changed with modem one by investing in research projects.
- At last but not least, the Bulgarian government must help plants to create and develop different technological and trade alliances. This will help to divide the whole risk of investments in innovations and market efforts.

As a conclusion, all recommends will give a chance to move Bulgarian food industry dynamic at more attractive curve of growth. But they need that Bulgarian government and food producing enterprises to have enough willingness to take part of food manufacturing evolution.

REFERENCES

1. Forrester J.W 1961, Industrial Dynamics. Portland, Oregon: Productivity Press.
2. Forrester J.W., 1988, Designing Social and Managerial Systems, *System Dynamics Group, Sloan School.* Cambridge, MA. Massachusetts Institute of Technology, October 1988
3. Krafft 2006, Introduction: what do we know about industrial dynamics?, *Revue OFCE,* June 2006, http://www.ofce.sciences-po. fr/pdf/revue/hs-06-06/rhs-06-06-intro2.pdf
4. Carlsson, B., Eliasson, G. 2001, "Industrial dynamics and endogenous growth", paper prepared for *the Nelson and Winter Conference of the Danish Research Unit for Industrial Dynamics (DRUID),* June, available at: www.druid.dk/conferences/nw/
5. Kopeva et al. 2010a, Basic determinants of Bulgarian industrial growth after the EU accession, *ACTA TECHNICA CORVINIENSIS,* 4/2010, pp. 83-90
6. Kopeva et al. 2010b, Factor Limitations on Industrial Dynamics in Bulgaria in Conditions of European Integration, *Economic Alternatives Journal,* 2EN/2010, pp. 40-59
7. Authors 2008, Implementation of European standards for quality and food safety in Bulgaria (economic and social effects), *Research results*
8. Eurostat, Industrial database, http ://epp.eurostat. ec. europa. eu/portal/page /portal/eurostat/home/