

RESEARCHING THE COMPANY'S COMPETITIVENESS IN THE PURCHASE OF MILK IN THE BITOLA REGION

B. H. PETROVSKA, N. A. PETROVSKA & I. V. ZDRAVESKI

Veterinary Faculty, University "Sv. Kliment Ohridski", Bitola, R. Macedonia

Summary

Petrovska, B. H., N. A. Petrovska & I. V. Zdraveski, 2013. Researching the company's competitiveness in the purchase of milk in the Bitola region. *Bulg. J. Vet. Med.*, **16**, Suppl. 1, 220–227.

Company's competitiveness is the rivalry of two or more companies which are aimed at the same customers and markets. Competitiveness in the last thirty years became one of the most analyzed economic phenomena, due to the growing number of companies related to the exchange of goods and services as well as the areas of capital flow. The aim of this study is the company's competitiveness of the dairies in the purchase of milk in the Bitola region. By using a method of analysis of documentation and comparative analysis the research is based on the data taken from the Food and Veterinary Agency of the Republic of Macedonia, for three dairies in the Bitola region: AD IMB Bitola, Zdravje Radovo and Ideal – Shipka. Purchase of milk is based on the quality of milk in accordance with the provisions of the Rulebook on the quality of milk and pure cultures. According to this regulation the milk should be a pure product obtained by proper milking of healthy cows, to have a characteristic smell and taste, to contain at least 3.2% milk fat, to contain at least 8.5% dry matter, cooled below 8°C, without the presence of antibiotics. Depending on the number of dairy cows and the quantity of received milk each dairy purchases certain quantity of milk. For the purchase of milk a price is formed according to the rulebook for purchase of milk adopted in 2002. According to this regulation the forming of the price is determined by the content of milk fat, protein, somatic cells and total number of bacteria. Based on the research results, the quantity of milk purchased by dairies in the Bitola region is determined. From those results a conclusion can be drawn that the company's competitiveness is present and it is conditioned by the successful management and marketing, as well as the influence of certain social and political factors.

Key words: company competitiveness, price, purchase of milk, quality

INTRODUCTION

Competition is the act of struggle between two or more companies for the entrance in to the market in order to gain the same advantage in selling their products, attract more customers and achieve higher profits. Competition is one of the most powerful forces in society for improvement of many areas of human endeavor. It is present everywhere whether it involves a challenging market by companies, coun-

tries dealing with globalization and social organizations responding to societal needs (Proter, 2008). Each organization needs a strategy to deliver superior value to its customers. In recent decades, competition has spread to almost all areas of human endeavor in which there is a greater need for its study. Today all companies should be able to meet and exceed customers' needs. There is a growing awareness

among economists that what it was discussed in the past few years about the meaning of competition is not the same with what the competition means in ordinary language. Therefore it appears the so-called theory of “perfect competition” (Hayer, 2010).

This theory provides a suitable model for evaluating the effectiveness of competition in real life and it can be concluded that the so-called “perfect competition” is actually a competition for everyone, but its conclusions are of little use in the study of competition. The best way to study the competition is through knowledge of the competitive environment, known as the market structure, which represents a dynamic system in which companies compete. In this environment a number of influences occur such as, for example, global economic conditions and local events, shortage of raw materials, labor or natural disasters that directly or indirectly affect competition. There are two types of competitors that appear in this environment and those are direct and indirect competitors. Direct competitors provide the same or similar products and services, while indirect competitors offer different products and services, but perform in the same market.

In this paper the subject of research are three dairies from the Bitola region that are direct competitors in the market. Considering that these dairies place the same product in the market entails the need to purchase the same raw materials. In this case the raw material that is purchased by these dairies is milk in the same territory or the Bitola region. Depending on the quantity of milk purchased on the whole territory can be seen the amount of the presence of company's competitiveness.

MATERIAL AND METHODS

Using the method of analysis of documentation and comparative analysis the research is based on data taken from the Food and Veterinary Republic of Macedonia for the amount of milk purchased during the period from 2010 to 2012. The data refer to three dairies performing purchase of milk from the Bitola region, namely: AD IMB Bitola, Zdravje Radovo and Ideal – Shipka. Purchase of milk is based on the quality of milk under the provisions of the Regulation on the quality of milk, cheese and pure cultures (Official Gazette of RM no. 51/82) and Rulebook in terms of microbiological safety of which must match the food in trade (Official Gazette of RM no. 45/83). Under these provisions milk should be clean unchanged product obtained by proper and regular milking of healthy and properly fed cows with nothing added or taken away. The milk should not be received 15 days prior to calving, or 8 days after calving and it should not contain colostrums. The milk should have inherent odour, taste and colour, not to be added water and the freezing is not greater than -0.53°C or the index of refraction not less than 39. The milk should contain at least 3.2% milk fat, should contain at least 8.5% dry matter without fat, pH should not be greater than 7.60, without the presence of antibiotics and immediately after milking it should be cooled below 80°C .

According to Article 3 of the Regulation establishing the elements for the purchase price of cow milk, raw cow's milk is classified in terms of the total number of bacteria and the total number of somatic cells (the Official Gazette).

According to the total number of bacteria the milk is classified in the following classes:

- Extra class – to 100.000/mL;
- First class – from 100,001/mL to 500.000/mL;
- Second class – from 500,001/mL to 1.200.000/mL;
- Third class – from 1,200,001/mL to 2,400,000/mL;
- Fourth class – over 2,400,001/mL

According to the total number of somatic cells the milk is classified in the following classes:

- First class – under 400,000/mL
- Second Class – over 400,000/mL

According to Article 4 of the Regulation establishing the elements for the purchase price of cow milk, raw cow's milk is classified in terms of the total number of bacteria and the total number of somatic cells purchase price of milk is determined by the following formula (Official Gazette):

$$OCM = (M \times MC) + (P \times PC) + K$$

where: OCM – purchase price of milk; M – percentage of milk fat; Q – percentage of protein; MC – price for percentage of milk fat; PC – price percentage of protein; K – adjustments (add quality).

The price is based on 40% milk fat

and 60% protein, and correction of the purchase price according to the quality of milk (add quality) is:

- Extra class +12%;
- First class +8%;
- Second class 0% ;
- Third class –10% ;
- Fourth class –20%.

Every manufacturer of milk must comply with the provisions for quality milk and depending on the degree of compliance with the same the milk which is offered in the market and purchases by dairies in the previously established price.

RESULTS

Based on the research the results obtained for the quantities of milk purchased in Bitola region in the period from 2010 to 2012 are given in Table 1.

From the data shown in Table 1 it can be seen a downward trend in the quantity of milk purchased. The reduction of the quantities of milk in the period 2010 to 2012 is shown in Fig. 1.

Reducing the quantity of milk purchased is due to the low purchase price of milk that is offered by the dairies. Al-

Table 1. Quantities of milk purchased in Bitola region

Quantities (litres) of milk purchased in Bitola region			
Month	2010	2011	2012
January	2041974	1831410	1711710
February	2015949	1753605	1771560
March	2467377	2108715	2104725
April	2757207	2368065	2266320
May	3041028	2731155	2689260
June	2706606	2509710	2481780
July	2630244	2372055	2260335
August	2421282	2192505	2102730
September	2134941	1893255	1879290
October	1931373	1835400	1777545
November	1758972	1584030	1566075
December	1742355	1603980	1448370

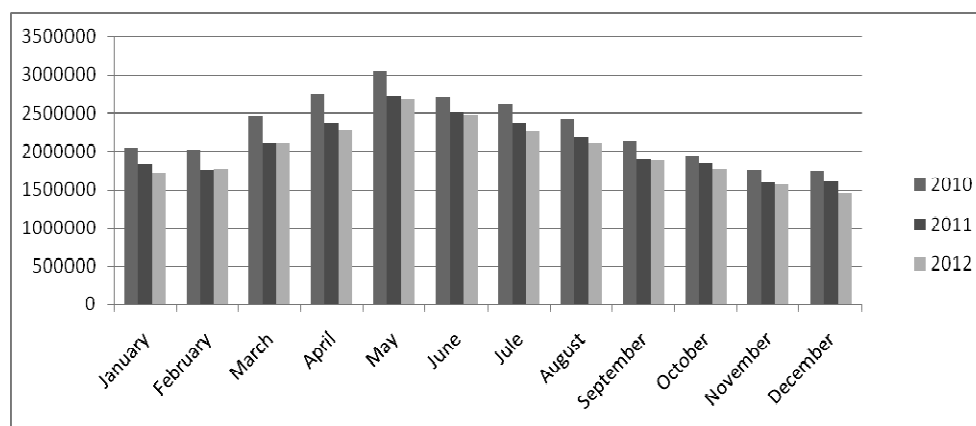


Fig. 1. Trend of decreasing the quantity of milk purchased in the period from 2010 to 2012.

Table 2. Average purchase price of milk in the Bitola region

Average purchase price of milk (EUR)			
Month	2010	2011	2012
January	0.25	0.28	0.31
February	0.25	0.29	0.31
March	0.25	0.29	0.31
April	0.24	0.29	0.31
May	0.24	0.29	0.30
June	0.24	0.29	0.30
July	0.24	0.29	0.30
August	0.24	0.29	0.30
September	0.24	0.29	0.30
October	0.25	0.30	0.31
November	0.27	0.30	0.31
December	0.27	0.31	0.31

though it appears that the average purchase price of milk is increasing it is still not high enough for efficient operation of the farmers in the region of Bitola. Table 2 shows the average purchase price of milk in the Bitola region in the period from 2010 to 2012.

The trend of increase in the average purchase price of milk in the Bitola region in the period from 2010 to 2012 is shown in Fig. 2.

Due to the low average purchase price of milk in the Bitola region there is a de-

crease in the number of farmers, the quantities of raw milk, reducing the number of milking cattle and it results in the closure of farms. The Table 3 shows reduction in the number of farmers in the Bitola region in the period from 2010 to 2012.

The downward trend in the number of farmers in the Bitola region in the period from 2010 to 2012 is shown in Fig. 3.

Due to low prices and expensive food for livestock, farmers are forced to sell their cows. By reducing the number of farmers the number of dairy cows is de-

creasing. Table 4 shows the reduction in the number of dairy cows in the Bitola region in the period from 2010 to 2012.

The downward trend in the number of dairy cows in the Bitola region in the period from 2010 to 2012 is shown in Fig. 4.

DISCUSSION

From the given results of the research it can be seen that the company's competitiveness today is more present than in the past. In 2010 dairies that were purchasing milk in the Bitola region were "AD IMB

Bitola" and "Ideal – Shipka". Due to the large quantities of milk and low average price of purchased milk there was no competition between these two dairies, because both dairies were able to purchase the required amount of milk for manufacturing their products. In 2011 there was an increase in the average purchase price of milk, but it was not high enough for a cost effective operation of farmers, because they still had a large amounts of raw milk. As a result there was a decrease in the quantity of milk purchased, but neverthe-

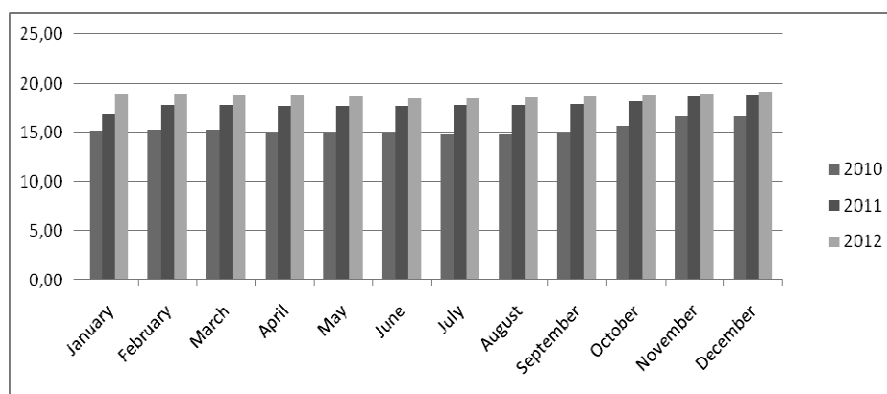


Fig. 2. Trend of increase in the average purchase price of milk in the period from 2010 to 2012.

Table 3. Number of farmers in the Bitola region

Number of farmers in the Bitola region			
Month	2010	2011	2012
January	1419	1059	1323
February	1458	1038	1317
March	1464	1035	1251
April	1410	1059	1170
May	1431	1143	1188
June	1413	1221	1263
July	1356	1272	1281
August	1320	1284	1269
September	1302	1299	1182
October	1263	1257	1200
November	1218	1218	1182
December	1140	1071	1155
Total	16194	13956	14781

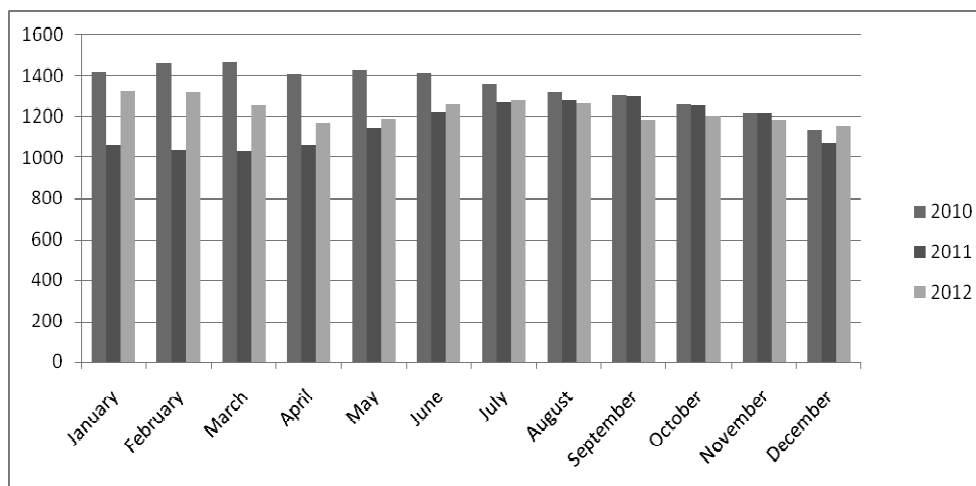


Fig. 3. Trend of reducing the number of farmers in the period from 2010 to 2012.

Table 4. Number of dairy cows in the Bitola region

Number of dairy cows in the Bitola region			
Month	2010	2011	2012
January	5490	4923	4602
February	6000	5220	5091
March	6633	5670	5658
April	7659	6579	6294
May	8175	7341	7230
June	7518	6972	6894
July	7071	6375	6075
August	6510	5895	5652
September	5931	5259	5220
October	5193	4935	4779
November	4887	4401	4350
December	4683	4311	3894

less it was sufficient to meet the needs of the dairies. Due to this fact, company's competitiveness was not yet present, but there was a sort of monopoly in the purchase of milk in the Bitola region, although the purchase was performed by two dairies.

In 2012 "Dairy Zdravje Radovo" appears in the market and starts with the purchase of milk in the Bitola region.

Due to circumstances in the past two years, farmers sell their cows and the amount of raw milk is reduced resulting in a reduced amount of purchased milk and an increase the average purchase price of milk. These changes result with the emergence of competition in the purchase of milk, because milk producers now are not able to purchase the suffi-

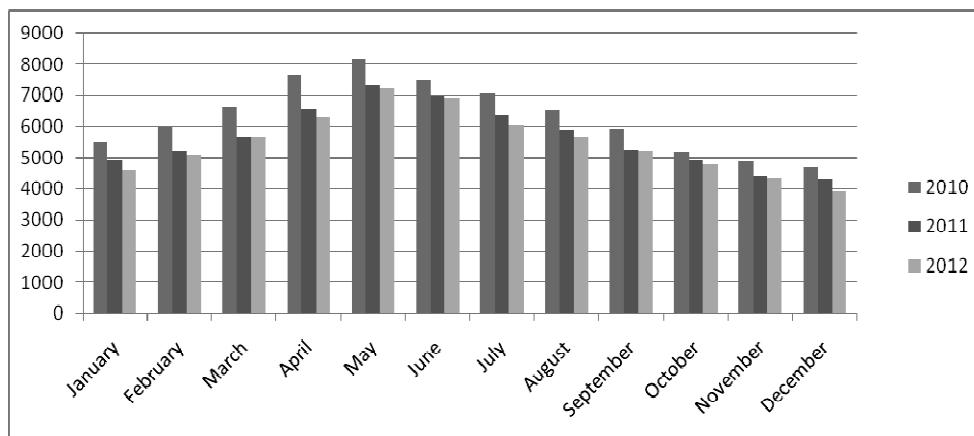


Fig. 4. Trend of reducing the number of dairy cows in the period from 2010 to 2012.

cient quantity of milk in order to meet their needs.

Although "Dairy Zdravje Radovo" begins with the purchase of milk in the Bitola region for the first time in 2012, it is a serious competitor in the market and forces the existing dairies "AD IMB Bitola" and "Ideal – Shipka" on a mutual struggle in the purchase of milk, resulting in a expressed competition for the purchase of milk in the Bitola region. As a result of this situation, dairies are forced to work to improve their management and the use of marketing tools in order to improve their position and attract farmers in order to purchase larger quantities of milk. The political situation in R. Macedonia has a share in the emergence of competition between the diaries in the Bitola region as the government starts to subsidizing the farmers which encourages them to a greater production as well as a choice where to sell their products.

From all this we can conclude that today as a result of government subsidies on dairy farmers, company's competitiveness in the purchase of milk is more

than present and has a tendency of continuous growth. Also the appearance in the market of the third dairy (Dairy Zdravje Radovo) that represents a real competition for the existing two dairies, because it purchases most of the offered amounts of milk at a good price and thus contributes both existing dairy to review the policy of their operations. Currently "Dairy Zdravje Radovo" is the most competitive dairy in the purchase of milk in the Bitola region.

REFERENCES

- Hayek, F. A., 2010, The meaning of competition,; <https://mises.org/daily/4181>.
- <http://www.fva.gov.mk/>.
- <http://smallbusiness.chron.com/meaning-competitive-environment-24981.html#gsc.tab=0>.
- Keddy, P. A., 2001, Competition (2nd edition), Kluwer Academic Publishers.
- Official Gazette of the Republic of Macedonia, 5 February 2002, Skopje, R. Macedonia.

Porter, M. E., 2008, On competition (Updated and expanded edition), Harvard Business Review Book.

Correspondence:

Natasha Petrovska
Kumrovec 36
7000 Bitola,
R. Macedonia,
e-mail: n.petrovska@yahoo.com