

COMPETITIVENESS OF SLOVAK AGRI-FOOD COMMODITIES IN THIRD COUNTRY MARKETS

I. Ubrežiová, Z. Kapsdorferová, I. Sedliaková

Received: March 23, 2012

Abstract

UBREŽIOVÁ, I., KAPSDORFEROVÁ, Z., SEDLIAKOVÁ, I.: *Competitiveness of Slovak agri-food commodities in third country markets*. Acta univ. agric. et silvic. Mendel. Brun., 2012, LX, No. 4, pp. 379–386

The impression of a single “European” market is gradually generated mainly due to action of the Common Agricultural Policy. Most of the agro-food complex enterprises see opportunities especially in the internationalization, globalization and regionalization in the agri-food sector, in pursuance of this, they are gradually smouldering innovative activities and trying to work on their competitive advantages. Based on the written we can say, that the issue of the competitiveness of enterprises, as well as of various commodities is in the current period highly current and adequate.

The importance of the trade with so-called third countries is still increasing. This increase is mainly caused by the enlargement of the European Union in the term of foreign trade and it can be also confirmed from the results of the research.

As the results of the research shows, the most important customers of the Slovak agri-food commodities are the Commonwealth of Independent States, where in the followed four-year period went within third countries at the average of 32.9% of the total Slovak agriculture export, also countries of EUROMED, where this proportion was 18.4%, and Croatia, with the proportion of 19.1%. These countries are the largest buyers of such Slovak agri-food commodities as are for example malt, chocolate and live cattle. On the other hand, Slovak republic is in agri-food import mostly dependent on such countries as are for example MERCOSUR countries, Mediterranean countries EUROMED, the African, Caribbean and Pacific (ACP), China, ASEAN and the U.S., which are the major suppliers of so-called „irreplaceable“ items, which Slovak republic can not produce.

Results of the research also shows that while the importance of the trade with those countries (note-third countries) is still increasing, Slovak export to third countries, in the contrast to its import, is still decreasing and that the most competitive agri-food commodities are for example live animals, milk and cream and whey.

competitiveness, agro commodities, export, import

The competitiveness of enterprises is in today's changing market environment one of those so-called pillar and therefore essential requirements and business properties. A successful business is that one, which competes in gaining competitive advantage and becomes a better and more successful than others. Competitive advantage means that the firm operates cheaper, possibly better than its competitors and which provides the full satisfaction of customers' real needs. If the company wants to maintain its position in a long term and to achieve some success, it must pre-define its unique market and its competitive advantages, but also monitor and use the key strategic and competitive factors of the

future development and use them to its advantage. Currently, is the competitiveness of enterprises increasingly based on speed, flexibility, ability to adapt to customer requirements, on the knowledge level of its employees and of course on innovations.

OBJECTIVE AND METHODS

The aim of the article was to assess and evaluate the competitiveness of Slovak agri-food commodities in third countries markets. The object of investigation were agri-food commodities (note - their structure and level of import and export), which were analyzed over a period of four consecutive calendar

years from 2006 to 2009. Data were obtained through the Statistical Office of the Slovak Republic and subsequently evaluated by contingency tables and graphic displays.

To the calculation of the competitiveness of commodities was used so-called indicator of comparative advantage RCA, which is mainly used to quantification of the competitiveness of commodity trade, possibly commodity groups or trade union (note – specifically meets to co-products of agricultural trade commodity, which in some commodity prices reach a higher value of comparative advantage, as the final commodity):

$$RCA = \ln [(x : m) / (X : M)],$$

where:

x.... export of the commodity

m... import of the commodity

X ... total agroexport of the country

M .. total agroimport of the country.

The result of quantification:

RCA > 0 ... comparative advantage

RCA < 0 ... comparative disadvantage.

RESULTS

The concept of competitiveness is currently one of the most commonly used terms, which if it is not precisely defined, can be explained, respectively analyzed from multiple perspectives and levels. This is a due to inconsistency of the definitions. The generally accepted redefinition of competitiveness is considered to be that one, which was used by the OECD, which says that competitiveness is „the degree to which a country can, under free and fair market conditions, produce goods and services which meet the test of international markets, while simultaneously maintaining and expanding the real incomes of its people over the long term.”

There are many authors and professionals, who tried and are still trying to explain the essence of the theory of competitiveness, for example *Bečvářová* (2005), *Pokrivčák* (2008), or *Šrédla* (2001) and *Mikoláš*

(2005), but despite their effort can be stated that this concept has no clear definition and it should be expanded so as it has done *Blunck* (2006):

- *corporate competitiveness*- company's ability to provide products and services equally, or more effectively and efficiently than competitors relative;
- *industrial competitiveness*- the ability of some countries company to achieve lasting (sustainable) success against foreign competitors, without the use of protective or substitutive instruments;
- *national competitiveness*- the ability of countries citizens to achieve a high standard of living increasing.

The success and competitiveness of the agricultural sector as a whole is in the single European market dependent on the success of individual businesses, which depends on the interplay of different factors, such as are internal, which are arising from the level and quality of business management, and external factors, which are linked to the state subsidy policies and creation of conditions of the agricultural market.

The importance of the trade with so-called third countries, which are remaining „outside“ of the single market, is still increasing. As it was mentioned before, this is mainly caused by the enlargement of the European Union in the term of foreign trade. In the observed four-year period has the proportion of turnover of the agri-food foreign trade with third countries on the total turnover of the country reached at average 8.4%.

Results of the research shows, that the total turnover of agrarian foreign trade with third countries from 2006 to 2009 decreased by 102.5 million. €, what means a decrease of 24.0%. While in the year 2007 was due to the decline in the value of export annual decrease of the value of the agricultural turnover of 4.0%, so in the year 2008 there was a slight recovery in import, but mainly in export, which resulted in an annual increase of the value of the turnover up to 5.0%. Significant annual decline in the value of export, as well as import is

I: Territorial structure of agri-food foreign trade between years 2006 and 2009 (in %)

| | Indicator | 2006 | 2007 | 2008 | 2009 |
|-----------------|---------------------------------------|-------|-------|-------|-------|
| EÚ-27 | Export | 92.19 | 95.94 | 95.49 | 96.04 |
| | Import | 87.34 | 89.40 | 89.92 | 90.64 |
| | Turnover | 89.43 | 92.19 | 92.22 | 92.76 |
| | Balance | 72.34 | 70.58 | 76.92 | 80.63 |
| | The degree of protection ¹ | 79.77 | 79.65 | 74.36 | 68.83 |
| Third countries | Export | 7.81 | 4.06 | 4.51 | 3.96 |
| | Import | 12.66 | 10.60 | 10.08 | 9.36 |
| | Turnover | 10.57 | 7.81 | 7.78 | 7.24 |
| | Balance | 27.66 | 29.42 | 23.08 | 19.37 |
| | The degree of protection ¹ | 46.63 | 28.45 | 31.34 | 27.50 |

¹The degree of protection of agri- food import by the export (in %)

Source: Statistical Office of the Slovak Republic, own processing

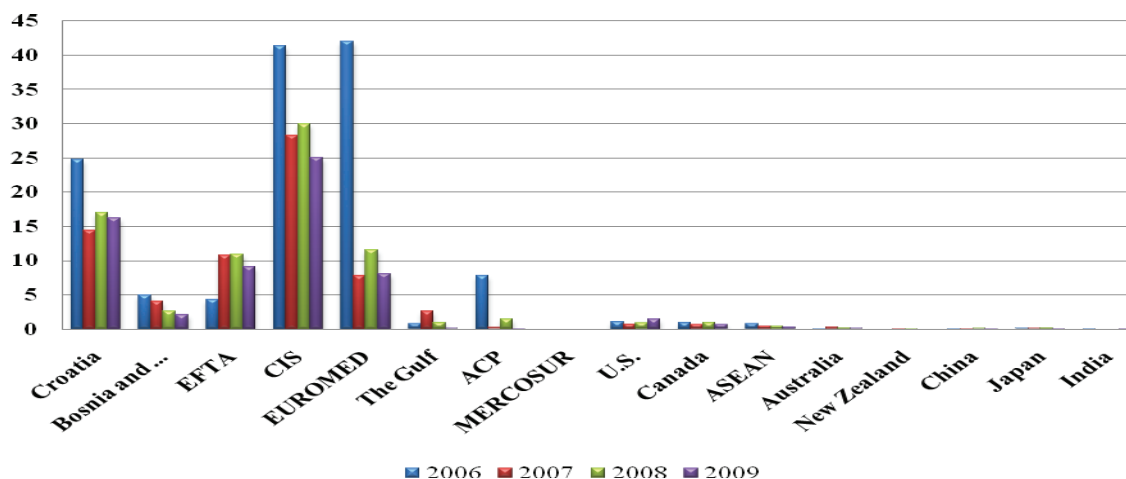
apparent only in the last analyzed year and that with the decline in the turnover of almost 16% (Tab. I).

The Slovak export to third countries, unlike to its export to member countries of the EU-27 is characterized by a significant imbalances, however, with a clear downward trend. There are turns to the period of mild recovery as well as the period of the loss of export. This is suggested by the fact, that while in the year 2007 value of the export to third countries decreased significantly by 40.1%, so at the following year it has again increased (13.1%) and in the last reported year (2009) it has again decreased (24.0%). The result of this variation was, in the comparison to the base year 2006, the overall decline in export of agricultural and food products up to 48.5% (Tab. I).

Despite to the significant decline in the value of export, which can be seen from the evaluation of Slovak agriculture export since year 2006, in which the markets of third countries made 7.8% of Slovak agriculture export, and from which it has felt to 4.1%, 4.5%, respectively 4.0%, remain the major customers

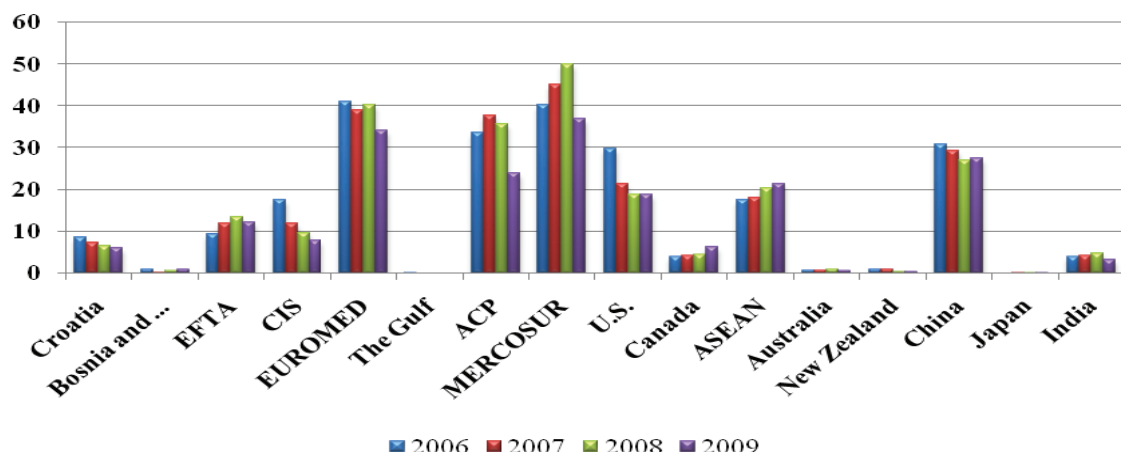
of Slovak agri-food products the Commonwealth of Independent States (CIS). While during the reported four year period, Slovak export to EFTA countries, especially Switzerland, significantly accelerated, so its export has in Croatia stagnated and in the case of Mediterranean countries (EUROMED) it has declined sharply. As the research shows, so in the studied years 2006, 2007, 2008 and 2009 went within third countries to the market of CIS at the average of 32.9%, to Mediterranean countries 18.4%, to the EFTA countries 9.3% and to Croatia 19.1% of the Slovak agriculture export (Fig. 1).

Slovak import from third countries during the reported four year period has relatively stagnated. While in the year 2007, in the comparison to the previous year, the value of Slovak import from third countries has decreased slightly (about 2%), so in the following year it has increased by 2.7%. Its value has declined significantly in 2009, when it acquired the value of 253.92 million €, which represented in the comparison with the base year 2006 decline by 12.7% (Fig. 2).



1: Territorial structure of Slovak agri-food export to third countries in the years 2006, 2007, 2008 and 2009 (in mil. €)

Source: Statistical Office of the Slovak Republic, own processing



2: Territorial structure of Slovak agri-food import from third countries in the years 2006, 2007, 2008 and 2009 (in mil. €)

Source: Statistical Office of the Slovak Republic, own processing

Considering to the fact that the Slovak agrarian import from third countries is focused primarily on so-called “indispensable” products (note - tropical and subtropical products) are the main suppliers of the MERCOSUR countries, Mediterranean countries EUROMED, the African, Caribbean and Pacific (ACP), China, ASEAN and the U.S. Of these most important countries and their groupings in third countries were in the year 2009 imported agri-food products in the total value of 163.0 million € and 192.3 million € in the year 2008 (64.2%, respectively 65.6% of the total import from third countries), meanwhile in 2006 the value of import reached 193.2 million €, what means 66.5% of the total Slovak import from third countries (Fig. 2).

The mentioned development of export and import of SR is reflected also in its overall balance of trade with third countries, as follows:

- interannual deepening of the total agri-food deficit in 2007;
- reducing of the accumulated deficit of Slovak agri-food trade with third countries in 2008 to 1.5% and in the next year even by 8.5%;
- active trade balance, which reached Slovakia in foreign trade with its traditional customers of agri-food products, namely with the Commonwealth of Independent States (an average of 19.6 million €), Croatia (on average 10.9 million €) and Bosnia and Herzegovina (mean + 2.7 mil. €);
- passive trade balance, which reached the Slovak Republic in trade with MERCOSUR (an average

II: The percentage of major exported commodities in the total agriculture export to third countries in the period of years 2006 and 2009

| Tariff code | Name of item | The share of exports to third countries in% | | | |
|-------------|-----------------------------|---|-------|-------|-------|
| | | 2006 | 2007 | 2008 | 2009 |
| 1806 | Chocolate | 6.10 | 17.67 | 15.17 | 16.28 |
| 1107 | Malt | 6.28 | 6.52 | 11.28 | 10.60 |
| 1701 | Sugar | 21.07 | 0.00 | 0.12 | 0.01 |
| 1001 | Wheat | 17.47 | 1.20 | 0.97 | 0.28 |
| 0102 | Live cattle | 2.00 | 3.62 | 4.97 | 17.44 |
| 1003 | Barley | 9.33 | 6.45 | 3.75 | 0.00 |
| 2106 | Food preparations | 1.78 | 5.23 | 6.78 | 7.07 |
| 0105 | Live poultry | 2.47 | 5.01 | 4.44 | 5.72 |
| 2104 | Preparations for soups | 2.59 | 3.88 | 4.08 | 5.81 |
| 0406 | Cheese and curd | 2.16 | 2.45 | 4.25 | 5.44 |
| 2208 | Spirits | 2.42 | 5.47 | 2.32 | 1.05 |
| 0402 | Milk and cream concentrated | 1.01 | 4.23 | 4.88 | 0.87 |

Source: Statistical Office of the Slovak Republic, own processing

III: The percentage of major imported commodities in the total agriculture import from third countries in the period of years 2006 and 2009

| Tariff code | Name of item | The share of imports to third countries in% | | | |
|-------------|-------------------------------|---|------|------|------|
| | | 2006 | 2007 | 2008 | 2009 |
| 0203 | Pork | 5.19 | 4.33 | 5.64 | 6.75 |
| 1806 | Chocolate | 4.45 | 4.18 | 4.01 | 4.20 |
| 1905 | Bakers' wares | 4.18 | 3.66 | 3.71 | 3.95 |
| 2106 | Food preparations | 4.02 | 3.38 | 3.41 | 3.78 |
| 2402 | Cigarettes | 2.81 | 6.27 | 2.36 | 2.00 |
| 2202 | Sweetened alcohol-free drinks | 3.12 | 2.85 | 2.81 | 3.37 |
| 2309 | Feed | 3.19 | 2.90 | 2.78 | 2.50 |
| 0207 | Poultry meat | 2.65 | 2.40 | 2.57 | 2.72 |
| 0901 | Coffee | 1.77 | 2.52 | 3.03 | 2.52 |
| 0406 | Cheese and curd | 2.45 | 2.12 | 2.38 | 2.72 |
| 1701 | Sugar | 1.73 | 2.07 | 2.64 | 2.14 |
| 1601 | Meat products | 1.73 | 1.94 | 2.17 | 2.24 |
| 1005 | Corn | 1.39 | 2.67 | 2.42 | 1.33 |
| 2204 | Wine | 1.40 | 1.57 | 1.56 | 3.28 |
| 0803 | Bananas | 1.76 | 1.66 | 1.75 | 1.91 |

Source: Statistical Office of the Slovak Republic, own processing

of 43.1 million €), the African, Caribbean and Pacific (an average of 30.4 million €), with China (an average of 28.6 million €), North America (an average of 25.1 million €), Mediterranean EUROMED (an average of 21.3 million €) and ASEAN (an average of 18.9 million €) (Tabs. II, III).

The evaluation of the RCA index of the development of mutual trade exchange of Slovak Republic with third countries, comes out for the Slovak Republic slightly more negative (Tab. IV). In the comparison to the year 2008, when the total number of 176 non-zero entries showed a comparative advantage 58 and comparative disadvantage 118 items, so in the year 2009 from the total number of 172 non-zero items showed 51 items a comparative advantage and the remaining 121 items a comparative disadvantage.

The analysis shows, that in the year 2009 were live animals, with the exception of live pigs and sheep,

milk and cream, whey, butter, cheese and curd, bird eggs, the other living plants, potatoes, wheat, rye, oats, corn, wheat flour, processed cereal grains, malt, starch, canola oil, sausages, other sugars, sweets, chocolate, malt and cereal products, canned vegetables, soup preparations, food products, mineral water, beer, vermouth, bran and oil cake after extraction of vegetable oils included to those competing products which had a good competitive advantage.

CONCLUSION

Results of the research shows that Slovak export to third countries, unlike to its export to member countries of the EU-27 is characterized by a significant imbalances, however, with a clear downward trend. While in the year 2007 the value of export to third countries has significantly decreased

IV: *The competitiveness of Slovak agrarian foreign trade with third countries (RCA index)*

| Tariff code | Name of item | Period | | | |
|-------------|--|--------|-------|-------|-------|
| | | 2006 | 2007 | 2008 | 2009 |
| 0102 | Live cattle | V | V | 7.40 | 8.26 |
| 0103 | Live pig population | ... | V | V | D |
| 0104 | Sheep and live goats | ... | ... | V | D |
| 0401 | Milk and cream, concentrated with no sugar or sweeteners | 8.37 | V | 11.69 | 3.69 |
| 0402 | Milk and cream, concentrated with sugar or sweeteners | 3.72 | 4.26 | 5.92 | 8.86 |
| 0404 | Whey and concentrated, sugar, sweeteners + other dairy products | 3.02 | 5.21 | 5.69 | 2.40 |
| 0405 | Butter with other fats and oils of milk, fat spreads | V | ... | 4.06 | 1.16 |
| 0406 | Cheese and curd | 4.20 | 3.48 | 4.09 | 4.89 |
| 0407 | Birds' eggs, in shell, fresh, canned, cooked | V | 9.95 | V | 2.40 |
| 0602 | Other live plants, cuttings, slips, mushroom spawn | 2.24 | 4.13 | 3.24 | 3.62 |
| 0701 | Potatoes, fresh, chilled | D | -3.19 | 0.50 | 0.6 |
| 0705 | Lettuce, chicory, fresh, chilled | D | D | 1.40 | D |
| 0706 | Carrots, turnips, edible roots, fresh, chilled | D | 0.25 | 3.40 | -0.65 |
| 0809 | Apricots, cherries, peaches, plums, fresh | 1.17 | 1.47 | 1.04 | -2.41 |
| 1001 | Wheat and meslin | V | V | 6.24 | 7.57 |
| 1002 | Rye | V | V | 3.67 | V |
| 1003 | Barley | V | 6.61 | V | D |
| 1005 | Corn | 1.76 | 1.18 | 1.82 | 0.80 |
| 1101 | Wheat flour, meslin flour | V | 1.82 | 2.59 | 3.23 |
| 1102 | Cereal flours other than wheat flour of meslin | D | ... | D | D |
| 1103 | Meal and pellets of cereals in the cylindrical shape | V | D | D | D |
| 1104 | Cereal grains otherwise worked, Sprouts | D | -2.37 | -2.88 | 2.02 |
| 1108 | Starches, inulin | 3.60 | 1.51 | 3.14 | V |
| 1206 | Sunflower seeds, also crushed | -0.15 | 0.82 | -0.21 | 2.29 |
| 1514 | Rapeseed and mustard oil, fractions, refined not chemically modified | D | -2.47 | -0.32 | 1.77 |
| 1517 | Margarine, mixtures | 3.09 | 3.18 | 1.20 | -0.13 |
| 1601 | Sausages and similar products of meat, meat offal, blood | 3.01 | 5.08 | -0.30 | 5.26 |
| 1702 | Other sugars, including lactose, maltose, fructose, glucose syrups | 1.12 | 2.48 | 2.61 | 2.92 |
| 1704 | Sugar confectionery not containing cocoa. white chocolate | -0.48 | 0.23 | 0.03 | 0.77 |
| 1806 | Chocolate, other food preparations containing cocoa | 1.02 | 2.31 | 2.05 | 2.24 |

Source: Statistical Office of the Slovak Republic, own processing

(up to 40.1%), so in the year 2008 it has grown up by 13.1%. Interesting is the year 2009, when there have been again exported less agricultural and food products, what means, in the comparison to the base year (note – in 2006), a decrease by almost 50%.

While to the major suppliers of so-called “irreplaceable” items, after which is in the Slovak Republic a high demand, can be included the MERCOSUR countries, Mediterranean countries EUROMED, the African, Caribbean and Pacific (ACP), China, ASEAN and the U.S., so the most important customers of Slovak agri-food commodities, despite minor variations, can be included the Commonwealth of Independent States, countries of EUROMED and Croatia.

Results of the research also shows that the competitiveness of Slovak agri-food commodities is from the year to the year falling down. While in the year 2008, from the total number of 176 non-zero items, showed 58 items comparative advantage and 118 items comparative disadvantage, so in the following year, from the total number of 172 non-zero items, it were only 51 items showing comparative advantage and 121 items comparative disadvantage.

As a possible solution to increase the competitiveness of Slovak agri-food sector shows the possibility of using the size structure of farms in terms of modernization and investment potential competition, as well as the vast potential of unused agricultural land in modernizing equipment and increasing the skills and expertise of individual workers. In addition to this, there are some possibilities in the elimination of the administrative burdens of domestic food producers with better access and cancellation of unnecessarily stringent national legislation, which is the major reasons of the decrease of the competitiveness of food producers, also in the promotion of the gradual elimination of non-uniform conditions for member countries of the EU internal market, or the opportunity to improve access to financial resources from EU funds for the food industry. But at first, as it has mentioned Foran (2003), it is necessary to review existing national and corporate strategies and adapt them to conditions of the global economic environment, and just then deal with other options for improving the competitiveness of Slovak agri-food sector.

SUMMARY

The aim of the study was to evaluate and to assess the competitiveness of Slovak agri-food commodities in third countries markets. The object of study were agri-food commodities, which were monitored and evaluated over a period of four consecutive calendar years (note- from the year 2006 to the year 2009). The resource base was comprised by data from the Statistical Office of the Slovak Republic, which were calculated by using so- called indicator of comparative advantage RCA and subsequently evaluated by contingency tables and graphic displays.

The result of the research shows, that Slovak export to third countries, in the contrast to its import, is characterized by a clear downward trend (note – while in the year 2006 were exported almost 7.81% from the whole Slovak production, in the year 2009 it was only 3.96%, what means a decrease for about 4%) and that the most competitive agri- food commodities are for example live animals, milk and cream, whey, butter, or cheese and curd (note – year 2009).

REFERENCES

- BEČVÁŘOVÁ, V., 2005: *Podstata a ekonomické souvislosti formování agrobiznisu*. 1. vyd. Brno: MZLU Brno, 2005, 68 s. ISBN 80-7157-911-4.
- BLUNCK, F., 2006: *What is competitiveness?* [cited 2012-03-09] Available on the Internet: <http://www.competitiveness.org/article/articleview/774/1/32/>.
- FORAN, J., 2003: *The Future of revolutions – Rethinking radical change in the age of globalization*. London UK – New York USA, 2003, 329 s., ISBN 1-84277-033-0.
- MIKOLÁŠ, Z., 2005: *Jak zvýšit konkurenceschopnost podniku*. Konkurenční potenciál a dynamika podnikání. 1. vyd. Praha: GRADA Publishing, 2005, 200s. ISBN 80-247-1277-6.
- POKRIVČÁK, J., 2008: *Mezinárodní ekonomika* [online]. 2008, 139 s. [cited 2012-03-09] Available on the Internet: http://www.fem.uniag.sk/Jan.Pokrivcak/me_readings.htm.
- ŠRÉDL, K., 2001: Vyjadřování podnikové konkurenceschopnosti pomocí souhrnné analýzy trhu a jeho efektivnosti. In: *Ekonomické a manažérské aspekty trvalo udržitelného rozvoje poľnohospodárstva*. Zborník vedeckých prác z medzinárodnej vedeckej konferencie MVD 2001. Nitra: SPU, 2001, s. 487–490, ISBN 80-7137-867-4.
- UBREŽIOVÁ, I. a kolektív, 2011: *Konkurenceschopnosť agropotravinárskych podnikov SR na Európskom trhu potravín*. Nitra: SPU, 2011, 129 s. ISBN 978-80-552-0637-0.
- Internet resources:
http://epp.eurostat.ec.europa.eu/portal/page/portal/statistics/search_database.
<http://www.mpsr.sk/download.php?fid=4272>.
<http://portal.statistics.sk/showdoc.do?docid=27339>.
http://www.statistics.sk/pls/elisw/objekt.send?uic=591&m_so=29.

Address

prof. Ing. Iveta Ubrežiová, CSc., Ing. Zuzana Kapsdorferová, PhD., Ing. Ingrida Sedliaková, Katedra manažmentu, Fakulta ekonomiky a manažmentu Slovenskej poľnohospodárskej univerzity v Nitre, Tr. A. Hlinku 2, 949 76 Nitra, Slovenská republika, e-mail: iveta.ubreziova@uniag.sk, zuzana.kapsdorferova@uniag.sk, ingrida.sedliakova@gmail.com

