

Analysis of the Market Concentration of Agricultural Enterprises in AP Vojvodina

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Abstract

Increased concentration on the market often leads to a limitation of the market share of other market participants, with the increase in market share being mostly accompanied by growth in market power. The increase in market power and the dominant position of individual market participants do not always create adverse effects for other market participants and the overall economy. The paper will analyze the market concentration of agricultural enterprises in the period between 2011 and 2015. The sample consists of medium and large companies of sector A - Agriculture, forestry and fisheries with headquarters on the territory of AP Vojvodina. The analysis of the market concentration of agricultural enterprises is carried out with the aim of perceiving the concentration of large and medium enterprises, as well as the concentration of other companies from the mentioned branch in terms of number of enterprises, number of employees, total turnover and gross value added.

Keywords

Market concentration, small and medium enterprises, agriculture.

Introduction

The growth and development of national economies today surpasses numerous theoretical considerations from the second half of the last century. In modern understanding, the comparative advantages are dominant, where the key factors of the speed of growth and development of national economies are the speed of integrating innovations, as well as the ability of the economy to direct theoretical knowledge into new technologies.

Agriculture makes a very significant contribution to the development of national economies at a glance (Bogovac, Cvetković, Ilić & Milićević, 2010). One of the basic characteristics of the market economy is that all market participants are trying to grow and grow and thus gain a dominant market position in order to achieve as much profit as possible. Higher growth in market share contributes to the economy of scale and lower costs per unit of product. Increases in the concentration of power of individual market participants usually

results in limiting the market power of other market participants. Due to the extreme growth of the company, there can be absolute domination of an enterprise or a certain number of enterprises, which leads to the elimination of other competitors in the market, whereby small and medium-sized enterprises are the most vulnerable.

The level of market share and the degree of concentration affect the level of competition in the market, as well as the nature of the national market of a country, with competition from the perfect competition to the oligopoly. If there is a low concentration on the market, the word is perfect competition, which means that all market participants are equally represented. If there is a dominant participation of a small number of companies on the market, the market is most often concentrated and oligopolistic (Vuković, Mijić, & Spahić, 2015).

In our country, in order to stimulate agricultural production, certain economic policy meas-

ures have been taken, such as subsidizing production, stimulating interest rates, writing off a portion of the debt to agricultural enterprises, reducing taxes and the like. These measures have yielded modest results because their positive effects were neutralized by numerous negative circumstances, and primarily by low prices of agricultural products (Obrenović & Vukoje, 2000).

Some studies point to a distorted financial balance, where unmatched bond matching times and availability deadlines resulted in the financial instability of agricultural enterprises. Key factors of financial instability are excessive short-term liabilities from operations, where unmatched deadlines represent a problem for a long time, specific for agricultural production, whereby it is very difficult to achieve positive effects in the short term (Jakšić, Vuković, & Mijić, 2011).

A highly aggravating circumstance for agriculture in our country is also the fact that the agricultural sector suffered much bigger blows from the global economic crisis than other sectors, in many segments, such as employment, income, wages, reduction of credit activity, and prevalently drastic fall in the agrarian sector of the budget (Pejanović, 2010).

Accordingly, sources for financing working capital at prices appropriate agricultural production should be provided, stimulating short-term loans, improving cooperation with donors and building capacities for the use of European Union funds for agricultural production (Andrić, Vuković, & Mijić, 2011).

The greatest effect of the crisis was reflected in the reduction of investment activity, the reduction of money for maintaining liquidity, the decline in purchasing power of consumers, the high price growth and difficult collection of receivables. Also, there was a decline in exports of AP Vojvodina, primarily due to the negative rate of growth of industry and agricultural production in certain years (Andrić & Vuković, 2013).

Globalization in agriculture has witnessed the growing participation of developing countries in world agro-trade. Concentration is not enough to establish market power. Future research should focus on compiling measures of market concentration, as well as to the effects of market concentration. Ideally, the measurement of market power should be based on price information. In the absence of detailed information on net margins, other means for concluding market power as trends in price spacing should be explored (Briones, 2013).

If the competitiveness of a particular economic system is generally understood as its ability to achieve results that match the goals of the system and its dynamics in a competitive environment, then under the current conditions, the key production criterion in an agricultural enterprise is competitiveness from the perspective of the acceptability of the offered product by the market (Brechvarova, 2007).

The rapid growth of population and the commercialization of agriculture increases the demand for processed agricultural and food products. In parallel with this, as a consequence, farmers are excluded from direct participation in the markets. Farmers – especially small holdings – are confronted with the pressure of large agricultural enterprises to supply raw materials in the required quantities and also face the difficulty of integration in the value chain (Antal, 2015).

1. Research and result

1.1. Market concentration of agricultural enterprises by number of enterprises in the branch

The market share of large and medium-sized agricultural enterprises in sector A - Agriculture, forestry and fisheries with its headquarters in AP Vojvodina in 2011 was 5.36%, and the participation of other companies in the mentioned branch amounted to 94.64%. In 2012, the market share of large and medium-sized agricultural enterprises declined by 0.44%, with a market share of 4.92%. At the same time, in 2012, the market share of other companies from the aforementioned branch is growing by the same percentage, with a market share of 95.08%.

Table 1 Market concentration by number of enterprises

Year	Concentration of large and medium enterprises	Concentration of other enterprises
2011	5.36%	94.64%
2012	4.92%	95.08%
2013	4.75%	95.25%
2014	4.48%	95.52%
2015	4.49%	95.51%

Source: The authors

In the next two years, the trend of decline in the market share of large and medium-sized agricultural enterprises continued. The decline in market share of large and medium-sized agricul-

tural enterprises in 2013 was 0.17%, so the market share of large and medium-sized enterprises was 4.75%. At the same time, there is growth by the same percentage of other companies from the mentioned branch, and the market share is 95.25%.

In 2014, the market share of large and medium-sized agricultural enterprises dropped by 0.27% and amounted to 4.48%, whereby the market share of other companies by the same percentage increased and their market share was 95.52%.

The next year there will be a very slight increase in the market share of large and medium-sized agricultural enterprises by only 0.01%, with the simultaneous decline in the market share of other companies for the mentioned percentage, with their share being 95.51%.

1.2. Market concentration of agricultural enterprises by number of employees in the branch

Analyzing the number of employees, it can be seen that large and medium-sized agricultural enterprises employ 63.06% of employees in the branch, while other enterprises account for 36.94% of employees in 2011.

In the following year, a small drop in employees in large and medium-sized agricultural enterprises is only 0.14% and it was 62.92%, with simultaneous increase in the number of employees in other agricultural enterprises, amounting to 37.08%.

Table 2 Market concentration according to the number of employees

Year	Concentration of large and medium enterprises	Concentration of other enterprises
2011.	63.06%	36.94%
2012.	62.92%	37.08%
2013.	63.12%	36.88%
2014.	61.61%	38.39%
2015.	59.46%	40.54%

Source: The authors

In 2013, there was an increase in the number of employees in large and medium-sized agricultural enterprises, amounting to 63.12%, with an increase of 0.2% compared to the previous year. The same year there was a drop in the number of employees in other agricultural enterprises from the branch by the same percentage, with the number of employees 36.88%.

The following year, employees of large and medium-sized agricultural enterprises in AP Vojvodina fell by 1.51%, accounting for 61.61%, while at the same time the number of employees in other agricultural enterprises increased by 38.39%.

The downward trend in the number of employees in large and medium-sized agricultural enterprises continued in 2015, where the number of employees fell by 2.15%, with the total number of employees in large and medium-sized agricultural enterprises at 59.46%. The number of employees in other agricultural enterprises increased by the same percentage and amounted to 40.54%.

1.3. Market concentration of agricultural enterprises by turnover

Turnover as one of the most important aspects of analyzing the market concentration of large and medium-sized enterprises was almost the same in the observed period with very small deviations. Thus, the turnover of large agricultural enterprises in 2011 was 34.79% and the turnover of other agricultural enterprises was 65.21%.

In the next year, the total turnover of large and medium-sized agricultural enterprises will increase by only 0.53%, amounting to 35.32%, with the simultaneous decrease in the total turnover in other agricultural enterprises, which amounted to 64.68%.

Table 3 Market Concentration by Turnover

Year	Concentration of large and medium enterprises	Concentration of other enterprises
2011.	34.79%	65.21%
2012.	35.32%	64.68%
2013.	36.92%	63.08%
2014.	36.84%	63.16%
2015.	36.89%	63.11%

Source: The authors

In 2013, the overall turnover of large and medium-sized agricultural enterprises also increased by 1.6%, with total turnover amounting to 36.92%. Other agricultural enterprises realized a decrease in turnover, which amounted to 63.08%.

In the next year, the total turnover of large and medium-sized agricultural enterprises declined by only 0.08% and amounted to 36.84%, with simultaneous slight increase by the same percentage of total turnover of other agricultural enterprises, with the total turnover amounting to 63.16%.

In the last year of the observed period, a very small increase in the total turnover of large and medium-sized agricultural enterprises was achieved by only 0.05%, with the total turnover amounting to 36.89%. At the same time, there is a small decrease for the stated percentage of turnover of other agricultural enterprises, with the total turnover amounting to 63.11%. Taking into account the total turnover in the observed period, it can be seen that in addition to large and medium-sized enterprises and other enterprises, they have a significantly high share in total turnover in the mentioned agricultural branch.

1.4. Market concentration of agricultural enterprises by gross value added

Large and medium-sized agricultural enterprises in 2011 achieved gross value added of 61.28% and other agricultural enterprises 38.72%.

In the following years, large and medium-sized agricultural enterprises are experiencing a fall in gross value added of 4.23%, accounting for 57.05%. At the same time, there is a rise in gross value added in other agricultural enterprises, where it was 42.95%.

Table 4 Market concentration per gross value added

Year	Concentration of large and medium enterprises	Concentration of other enterprises
2011.	34.79%	65.21%
2012.	35.32%	64.68%
2013.	36.92%	63.08%
2014.	36.84%	63.16%
2015.	36.89%	63.11%

Source: The authors

In 2013, large and medium-sized agricultural enterprises realized a fall in gross value added by 0.73%, with the gross value added amounting to 56.32%, with a simultaneous increase in the gross value added of other agricultural enterprises, where it was 43.68%.

In the next year there will be a slight increase in gross value added for large and medium-sized agricultural enterprises by 0.66%, with the gross value added being 56.98%. At other agricultural enterprises, the gross value added rose at the same time, which amounted to 43.02%.

In the last year of the observed period, large and medium-sized agricultural enterprises recorded a fall in gross value added by 0.35%, with the gross value added being 57.33%. Other agri-

cultural enterprises in the sector recorded growth in the gross value added by the same percentage, with the gross value added being 42.67%.

2. Discussion

At the beginning of the observed period, medium and large agricultural enterprises in the Autonomous Province of Vojvodina achieved a market share of 5.36% in relation to other agricultural enterprises with a market share of 94.64%. However, regardless of the smaller market share, medium and large agricultural enterprises account for 63.06% of employees in comparison to 36.94% of employees of other agricultural enterprises. Other semi-durable enterprises make a significantly higher turnover of 65.21% compared to the turnover of large and medium-sized enterprises, which amounted to 34.79%. Regardless of the significantly lower turnover and the number of employees, large and medium-sized agricultural enterprises make a gross value added of 61.28% compared to the gross value added of other agricultural enterprises, which amounted to 38.72%.

In the new year, there is a decrease in the number of medium and large agricultural enterprises in AP Vojvodina with a share of 4.92%, and at the same time, the increase in the share of other agricultural enterprises. Also, there is a slight decrease in the employment of medium and large agricultural enterprises, whose share in 2012 amounts to 62.92%, and at the same time to the increase of employees in other agricultural enterprises. Also, the gross value added of medium and large agricultural enterprises was reduced in the year compared to the previous year, with a share of 57.05%, with the simultaneous increase in the value added of other agricultural enterprises. However, the same year, medium and large agricultural enterprises, the fallback of all observed values only increased their turnover compared to last year with a share of 35.32%, while other agricultural enterprises realized a decrease in turnover.

In 2013, a similar trend was registered like in the previous year. The share of medium and large agricultural enterprises continued to decline in relation to the fiscal year and amounted to 4.75%, with simultaneous increase in the share of other agricultural enterprises. Like in the previous year, medium and large agricultural enterprises realized turnover growth with a share of 36.92%, while other agricultural enterprises realized a decrease in turnover, with simultaneous increase of employees in large and medium-sized agricultural

enterprises. In the observed year, the gross value added of medium and large agricultural enterprises, like last year, registered a decrease with a share of 56.32%, with the increase in the value added of other agricultural enterprises.

The share of medium and large agricultural enterprises in 2014 also recorded a decline with, a share of 4.48%, with a simultaneous increase in the share of other agricultural enterprises of 95.52%. The number of employees in medium and large agricultural enterprises registered a decrease of 61.61%, while other agricultural enterprises recorded growth in the number of employees. The same year, there is a slight drop in the turnover of medium and large agricultural enterprises with a share of 36.84% with a slight increase in the turnover of other agricultural enterprises. Compared to the past two years, the added value of medium and large agricultural enterprises recorded modest growth with a share of 56.98%, while the gross value added of other agricultural enterprises declined with a share of 43.02%.

In the last year of the observed period, medium and large agricultural enterprises recorded an increase of only 0.01%, while at the same time reducing the share of other agricultural enterprises for the same percentage. The number of employees in medium and large agricultural enterprises has a share of 59.46%, which is a decrease in participation compared to the previous year, with the increase in the share of other agricultural enterprises. Turnover of medium and large agricultural enterprises grew by only 0.05% in relation to the previous year, and the share of turnover was 36.89%, while other agricultural enterprises recorded a decrease in turnover by the same percentage, with a share of 63.11%. Gross value added recorded modest growth of medium and large agricultural enterprises compared to the previous year, with a share of 57.33% on other agricultural enterprises, which have a fall in gross value added.

Conclusion

The entire field of agriculture, as well as the continuity and stability of agricultural production, have an immeasurable significance on the development of the entire economy of a country. Where is primarily the primary production and export of agricultural products in order to transform them and distribute them in the form of finished products.

One of the basic specifics of the business of agricultural enterprises as well as agricultural

production in general are seasonal fluctuations and significant influence of climate change. In addition to climate change, agricultural enterprises are exposed to other risks in their business, where they primarily focus on raw materials prices, numerous environmental risks and financial risks.

In our country, one of the most important problems faced by agricultural enterprises is the insufficient and inadequate support of the agricultural budget as well as the great uncertainty of the sales and purchase prices of agricultural products.

In spite of all the difficulties, the additional problem is also due to the great impact of the global economic crisis, where the agricultural sector has suffered immense consequences. Therefore, it can be concluded that the market concentration of large and medium-sized agricultural enterprises as well as other agricultural enterprises from the aspect of number of enterprises, number of employees, total turnover and gross value added in the observed period had different values, and this difference did not have significant deviations. **SM**

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