INSTITUTIONAL AND MANAGEMENT ARRANGEMENTS OF TAX BURDEN OPTIMIZATION ON THE AGRICULTURAL ENTERPRISES

Abstract. The rapid change of legal act Ukraine helps to find and detection of new factors that influence the optimization of the tax burden and economic efficiency of documestic agricultural enterprises. Therefore optimization of organizational and managerial aspects of taxation and the tax burden research of agricultural entities at the current stage of economic development requires further research. The term «tax burden» is adduced in this article, the analysis of tax in the context of tax policy agricultural and industrial field of Ukraine is implemented, the main factors of accounting innovations have been researched in order to improve total tax burden ratio. The analysis of efficiency evaluation in tax policy of the agricultural enterprises is conducted. The main articles of improving tax burden index on the agricultural enterprises as defined in International Financial Reporting Standards (IFRS) are formed through DEA-analysis.

Keywords: tax policy, tax burden efficiency ratio, DEA-analysis, IFRS, tax optimization.

JEL Classification: H22, M41, Q1

Formulas: 2; fig. : 0, tabl. : 3, bibl.: 10
України, досліджено основні чинники облікових нововведень поліпшення коєфіцієнта сукупного податкового навантаження. Проведено аналіз оцінки ефективності податкової політики аграрних підприємств. За допомогою DEA-аналізу сформовані основні статті поліпшення показника податкового навантаження на сільськогосподарському підприємстві, визначені в Міжнародних стандартах фінансової звітності.

Ключові слова: податкова політика, коєфіцієнт ефективності податкової навантаження, DEA-аналіз, Міжнародні стандарти фінансової звітності, оптимізація податків.

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ОРГАНИЗАЦИОНАНУ-УПРАВЛЕНЧЕСКИЙ МЕХЕРИЗМ ОПТИМИЗации НАЛОГОВОЙ НАГРУЗКИ СЕЛЬСКОХОЗЯЙСТВЕННЫХ ПРЕДПРИЯТИЙ

Аннотация. Быстрое изменение правового акта Украина помогает найти и выявить новые факторы, которые влияют на оптимизацию налогового обложения и экономическую эффективность сельскохозяйственных предприятий. Поэтому оптимизация организационных и управленческих аспектов налогообложения и исследование налогового обложения сельскохозяйственных предприятий на современном этапе экономического развития требуют дальнейших исследований. В статье приведено понятие «налоговая нагрузка», осуществлен анализ налогов в контексте налоговой политики предприятий агропромышленной отрасли Украины, исследованы основные факторы учетных нововведений улучшения коэффициента совокупной налоговой нагрузки. Проведен анализ оценки эффективности налоговой политики аграрных предприятий. С помощью DEA-анализа сформированы основные статьи улучшения показателя налоговой нагрузки на сельскохозяйственном предприятии, определены в Международных стандартах финансовой отчетности.

Ключевые слова: налоговая политика, коэффициент эффективности налоговой нагрузки, DEA-анализ, Международные стандарты финансовой отчетности, оптимизация налогов.

Target setting. Current conditions of managing entities in the market economy for determining effective economic decisions are necessitated with the analysis of all internal and external diversity factors, affecting the financial and economic activity. Thus far the effective operation of business and development of domestic agricultural enterprises, their competitiveness in the global market depends on many factors, especially on the size of their tax burden. The research of tax systems and evidence-based selection of the best among them in terms of optimization of tax payments are important management tasks for managers of agricultural enterprises.

Actual scientific researches and issues analysis. An important contribution to the research of conceptual provisions of state tax provisions and tax formation in enterprises are provided by outstanding representatives of Western economic thought: Dobrodomova T.V., Indira Rajaraman, Kulikov T.V., John. Keynes, Laffer A., Smith A. The issue of tax burden on both micro and macro levels considered by domestic scientists: Grischuk A.M., Kravchuk O., Malyshkin O., Aranchiy V.I., Barabash N.S., etc.
To bold of unsolved issues. However, the rapid change of legal act Ukraine helps to find and detection of new factors that influence the optimization of the tax burden and economic efficiency of domestic agricultural enterprises.

The research objective is guided in optimization of organizational and managerial aspects of taxation and the tax burden research of agricultural entities at the current stage of economic development.

The statement of basic materials. The implementation form of enterprise strategic potential in the context of the most important aspects of its activity is a tax policy. At the macro level managers always consider it as an important part of the overall profit management that limited with tax payments. However in practical activity of accountants tax policy is not only aimed at optimizing tax payments, but also determined by the efficiency of measures have implemented in taxation currently [6].

Efficiency is a key factor in determining the success of tax policy process at each enterprise. Efficiency of tax policy evaluation expended in agricultural field enterprises: PJSC «Zhornysche», JV «Niva» and PE «Agricultural firm Elita». The above-mentioned companies approximately occupy the same level of potential resource for positive yield from agricultural products sales, in our view, that provides their optimal comparability in the analysis of tax burden (Table. 1).

<table>
<thead>
<tr>
<th>Index</th>
<th>PJSC «Zhornysche»</th>
<th>JV «Niva»</th>
<th>PE «Agricultural Firm Elita»</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 The amount of taxes, fees, and mandatory payments paid by enterprises, UAH thou.</td>
<td>7609</td>
<td>8360</td>
<td>8051</td>
</tr>
<tr>
<td>1 Tax Structure in the released price of the products, %</td>
<td>15,3</td>
<td>18,7</td>
<td>16,2</td>
</tr>
<tr>
<td>Tax Capacity Sales Ratio</td>
<td>0,10</td>
<td>0,07</td>
<td>0,08</td>
</tr>
<tr>
<td>Income Tax Factor</td>
<td>0,14</td>
<td>0,15</td>
<td>0,22</td>
</tr>
<tr>
<td>Tax Expenses Ratio</td>
<td>0,21</td>
<td>0,26</td>
<td>0,33</td>
</tr>
</tbody>
</table>

* Calculated according to the financial statements of PJSC «Zhornysche», JV «Niva» and PE «Agricultural firm Elita» for the respective years

The results of Table 1 can be concluded that Tax Capacity Sales Ratio in PJSC «Zhornysche» remained unchanged throughout the research period. It signifies that the growth of total amount of taxes in the enterprise has been increasing in sales almost proportionally. The figure tended to decrease by 8% in JV «Niva» at the end of the examined period, indicating a reduction of tax payments per unit of realized agricultural products volume. An opposite situation is displayed in PE «Agricultural firm Elita» than in JV «Niva» such as an increase in ratio by 7%, due to the elimination of costly outbreaks of African cattle plague in 2016.

Income Tax Factor is calculated whereas value added tax. The maximum value (0.31) takes the figure for the period of 2015 in the enterprise of JV «Niva», but it will continue its decline to 0.16 in 2016, due to the fact that taxes and fees have not been paid in full amount in current.

Tax Expenses Ratio for the period is increased in JSC «Zhornysche» by 12% and in PE «Agricultural firm Elita» by 7%, due to rising costs by 56% and 64% respectively. Reducing the rate of 15% in JV «Niva» caused a reduction in the part of direct taxes in total expenses by 33%.

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The analysis of tax policy efficiency (Table 1) reveals only the overall situation regarding the taxation of agricultural enterprises and makes it impossible to trace changes in the most tax payments. Such information can only provide a multivariate analysis, because it allows you to identify the impact of specific taxes (profit tax, VAT, Unified Social Tax, resource fees, local taxes and fees) on the tax burden efficiency [2].

The term «tax burden» as scientists determine the effects of taxes on individual taxpayers and the economy in general, related to economic restrictions and resulting taxes [7].

The tax burden on the micro level is a measure that allows comparing quantitatively the results of the interaction of tax relations [10, c. 8].

Famous scientists Dobrodomova T. and Kozhevnykov E. noted that «the rate of the tax burden should consider methods of formation of taxable bases and tax payments, depending on the applied activity and enterprise tax regime [5, c. 45].

In order to calculate tax burden on specific agricultural enterprises the formula 1 by domestic scientist Malyshkina A. is offered:

\[
TBR = \frac{\text{Tax Am.}}{\text{Prof. Am.}}
\]

where TTBR – total tax burden ratio;
Tax Am. – The amount of taxes, duties of a specific taxpayer;
Prof. Am. – The amount of profit applied for calculation [8, c. 21].

The calculation of total tax burden in the researched enterprises is furnished in Table 2.

<table>
<thead>
<tr>
<th>№ 3/н</th>
<th>Index</th>
<th>PJSC «Zhornysche»</th>
<th>JV «Niva»</th>
<th>PE «Agricultural Firm Elita»</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Profit Tax</td>
<td>702</td>
<td>1284</td>
<td>1385</td>
</tr>
<tr>
<td>2</td>
<td>Value Added Tax is due to be paid in the budget</td>
<td>3510</td>
<td>3410</td>
<td>3250</td>
</tr>
<tr>
<td>3</td>
<td>Value Added Tax is due to be returned from the budget</td>
<td>1541</td>
<td>1658</td>
<td>1025</td>
</tr>
<tr>
<td>4</td>
<td>Unified Social Tax</td>
<td>1455</td>
<td>1435</td>
<td>1854</td>
</tr>
<tr>
<td>5</td>
<td>Resource Fees</td>
<td>95</td>
<td>87</td>
<td>158</td>
</tr>
<tr>
<td>6</td>
<td>Local taxes and fees</td>
<td>135</td>
<td>167</td>
<td>54</td>
</tr>
<tr>
<td>7</td>
<td>Other taxes and payments</td>
<td>171</td>
<td>319</td>
<td>325</td>
</tr>
<tr>
<td>8</td>
<td>Total</td>
<td>7609</td>
<td>8360</td>
<td>8051</td>
</tr>
<tr>
<td>9</td>
<td>Net Income (receipt) from marketing products (goods, works, services)</td>
<td>21547</td>
<td>20154</td>
<td>16487</td>
</tr>
<tr>
<td>10</td>
<td>Other Operating Profit</td>
<td>2025</td>
<td>3266</td>
<td>1534</td>
</tr>
<tr>
<td>11</td>
<td>Other Financial Profit</td>
<td>32</td>
<td>25</td>
<td>10</td>
</tr>
<tr>
<td>12</td>
<td>Other Profit</td>
<td>98</td>
<td>75</td>
<td>52</td>
</tr>
<tr>
<td>13</td>
<td>Total Profit</td>
<td>23702</td>
<td>23520</td>
<td>18083</td>
</tr>
<tr>
<td>14</td>
<td>Total Tax Burden Ratio (TTBR)</td>
<td>0,33</td>
<td>0,38</td>
<td>0,45</td>
</tr>
</tbody>
</table>

* Compiled based on financial statements and report on the implementation of the financial plan of PJSC «Zhornysche», JV «Niva» and PE «Agricultural firm Elita» for the respective years.
According to Table 2 the figures of total tax burden ratio of PJSC «Zhornysche» formed 0.32 or 32% in 2014, 0.36 or 36% in 2015 and 0.45 or 45% in 2016, thus at 1 USD of total profit falls 32 kops. of taxes, fees and other mandatory payments in 2014, 36 kops. - in 2015 and 45 kops. - in 2016. Regarding JV «Niva», over the period decreased total tax burden ratio from 0.41 in 2015 to 0.31 in 2016, which becomes positive factor for the enterprise and will increase its profit. In PE «Agricultural firm Elita» as in PJSC «Zhornysche is also observed a tendency of total tax burden ratio increasing from 0.30 in 2014 to 0.56 in 2016, which is the excess of the optimal level of the indicator (35-40 %) [4] by 16%. This, in turn, reflexes the inefficient state activities in the field of agricultural economics taxation.

The calculation of index for optimal efficiency for the last year of research TTBR (0.31 in JV «Niva») indicated a significant improvement in its level at 13% (((0.45 + 0.31 + 0.56) / 3) - 0.31 = 0.13) relatively to the average figure for the analyzed period.

Analysis of TTBR value on the objects of research displayed a tendency to increase tax burden on average by 5% per year (33% in 2014, 38% in 2015, 44% in 2016). In total, the average TTBR during the period was 38%.

The increase of tax burden in the agricultural sector in recent years, in our opinion, can be compensated by searching and applying advanced methods of accounting and taxation.

Nowadays one of the most relevant methods of optimizing the tax environment of enterprises grounded on the findings of leading scientists of the USA and its European counterparts is a new method of research data membranes (Eng. Data Envelopment Analysis (DEA)) [1]. Aforesaid is the basis of determining efficiency as the ratio of the sum of all output parameters to the sum of all input factors to build a so-called «data shell», which is based on the fundamentals of linear programming. The implement of this capacity will enable us to determine the ceiling of tax burden in the agricultural enterprises in Ukraine. DEA-analysis also determines the totality of the surveyed enterprises is operating most effectively by fixing their limits of efficiency and for others by establishing their inefficiency. This efficiency is calculated implementing the formula 2:

$$E = \frac{\Sigma VhP}{\Sigma VyhP}$$

(2)

where $\Sigma VhP$ – the amount of specified input parameters;
$\Sigma VyhP$ – the amount specified output parameters.

The evaluation of these parameters was carried out by us by applying the principle of Pareto efficiency, which is the fact that the given factors cannot increase corporate profits while increasing taxes.

While DEA - analysis due diligence five input (proceeds from sale of products (goods and services), profit tax, value added tax (VAT), unified social tax (UST), other payments)) and one output (total tax burden ratio (TTBR)) factors. During the multi-DEA-analysis used as input and output-oriented model. The results of the analysis are shown in Table 3.

The results of the DEA-analysis provide us with the opportunity to present how an enterprise that implements the most balanced tax policy parameters those will further identify ratios contributed to the improvement of tax burden efficiency. JV «Niva» is the enterprise, which in 2016, unlike other organizations where tax burden efficiency index formed 0.974, and it, in turn, indicates the maximum approximation to the optimal balance between its taxes and revenues.

Among the totality of all factors contributed to the maintenance of a positive result, transition of society to International Financial Reporting Standards (IFRS) has prevailed major which allowed implementing financial reporting methods different in comparison with national standards of accounting [9]. The implementation hitherto perceived by many representatives of agricultural enterprises a fairly complicated and expensive process that gives tangible benefits. However, as it has been observed and correctly identified by national accountants, IFRS accounting methods provided lower tax burden in agricultural enterprises.
Table 3

The results of the implementing DEA-analysis in determining tax burden efficiency in the agricultural enterprises of Ukraine

<table>
<thead>
<tr>
<th>№</th>
<th>Factor</th>
<th>PJSC «Zhornysche»</th>
<th>JV «Niva»</th>
<th>PE «Agricultural Firm Elita»</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Input Parameters</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Receipts from marketing (goods, work and services)</td>
<td>21547</td>
<td>20154</td>
<td>16487</td>
</tr>
<tr>
<td>2</td>
<td>Profit Tax</td>
<td>702</td>
<td>1284</td>
<td>1385</td>
</tr>
<tr>
<td>3</td>
<td>VAT</td>
<td>1969</td>
<td>1752</td>
<td>2225</td>
</tr>
<tr>
<td>4</td>
<td>UST</td>
<td>1455</td>
<td>1435</td>
<td>1854</td>
</tr>
<tr>
<td>5</td>
<td>Others taxes and payments</td>
<td>401</td>
<td>573</td>
<td>537</td>
</tr>
<tr>
<td></td>
<td>Output Parameters</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>CRTB</td>
<td>0.32</td>
<td>0.36</td>
<td>0.45</td>
</tr>
<tr>
<td>7</td>
<td>Tax Burden Efficiency Index</td>
<td>0.410</td>
<td>0.755</td>
<td>0.333</td>
</tr>
</tbody>
</table>

Detailed analysis of the financial statements of JV «Niva» in 2016 allowed isolating the main article, which provided improved tax burden efficiency index:

1) *Standard IAS 16 «Property, Plant and Equipment»* allowed JV «Niva» implementing a model of fixed assets not carried at initial cost and revaluation model, making it possible to increase the balance value of fixed assets. This surplus amount was not recognized as a profit, and therefore not included in the computation of taxable profit.

In periods of significant inflation observed in Ukraine during the surveyed 3 years (2014-2016), regular revaluation low value items to their market value also partially reduced the amount of profit before taxation.

2) *Viewing period of valuable operation with assets of enterprises.* The provisions of standard IAS 38 «Intangible Assets» require enterprises, keeping records on international standards, to report annually during the period of valuable operation with intangible assets.

In turn, such a review directly affected the amount of JV «Niva» depreciation in 2016 and therefore on the amount of taxable profit. This process from the perspective of accountants is burden, but when viewed from the perspective of managers, it opens up opportunities for tax planning.

3) *Display of biological assets and agricultural produce at fair value principles.* The international provision of IAS 41 «Agriculture» defines fair value as a market price less the costs of expected future sales on the spot (point-of-sale costs). This approach in JV «Niva» was implemented as an assessment of biological assets and for agricultural products. Increased costs thus, in turn, led to a reduction in the amount before taxation.

4) *Recognition of impairment loss on assets.* In a period of high inflation in Ukraine interest rate used to discount future money flows tended to increase. This, in turn, led to a decrease in the value of implemented objects of JV «Niva» and thus, made it possible for the recognition of an impairment loss on the asset and the impact on the overall profit of the investigated enterprises.

5) *Ensure the liquidation of certain assets of the enterprise.* IAS 37 «Provisions, Contingent Liabilities and Contingent Assets» requires the inclusion of the cost of expenses for moving production facilities.
These provisions in JV «Niva» had an impact on costs of the enterprise - the original amount of provision is recognized in the cost of the object, it increased the amount of depreciation and reduced taxable profit over the valuable operations of the objects.

6) Deposition of recognition of revenue from the sale of agricultural machinery. The provisions of IAS 17 «Revenue» nowadays in have not fully aligned with national accounting standards. These features quite often play into the hands of taxpayers. Thus, in the case of JV «Niva», sale of agricultural equipment is concurrent obligation of the seller to provide guarantees to the buyer free service for a specified period. Profit for the implementation of agricultural machinery was delayed. Recognition of deferred profit related to the guaranteed agreement will be for the duration of the parts guarantee terms and profit in order to optimize taxation was postponed to the next financial year.

Reducing tax burden for agricultural enterprises and facilitate stabilization of an agricultural sector, which provides a significant inflow of foreign currency in Ukraine and support of national currency in present - a necessary condition for the release Ukraine from economic crisis. In terms of financial optimization, minimizing taxes opens new prospects for agricultural enterprises, as allows redirecting the savings to implement other types of enterprise development [3].

Conclusions and directions of further researches. Summarizing the results of research, it should be noted that the procedure for the establishment of optimal taxation of agricultural enterprises provides a detailed analysis of its various elements using the latest techniques and the mandatory consideration of alternatives and consequences of their introduction to the overall effectiveness of the financial and economic activities.

One of the key effectiveness indexes in tax policy of enterprises of agrarian sphere of economics in is the level of tax burden in enterprises.

Applying a new method DEA-analysis for Ukraine in the field of tax burden allowed us to identify the entire surveyed population JV enterprise «Niva» tax burden efficiency index, which amounted to 0.974, compared with other enterprises in 2016 was not typical.

The main factor ensuring such a positive level is to realize the introduction of the same year in the enterprise of International Financial Reporting Standards, which allowed implementing financial reporting methods different in comparison with national standards of accounting.

The main factors, which change has led to improved tax burden efficiency factor in JV «Niva» were: 1) Revaluation of fixed assets; 2) Viewing period valuable operation of assets; 3) Display of biological assets and agricultural produce at fair value principles; 4) Recognition of impairment loss on assets; 5) Ensure the liquidation of certain assets of the company; 6) Deposition of recognition of profit from the sale of agricultural machinery.

The overall economic effect of the introduction of new IFRS methods in accounting and tax accounting formed 13%.

Література


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