THE PRACTICAL PROBLEMS WITH THE VALUATION OF TANGIBLE ASSETS IN AGRICULTURE

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The aim of the research was to present the renovation and modernisation costs problem of the tangible assets in agriculture. There was used the case study method as well as the descriptive analysis with the usage of quantity and comparative methods. As the result there was pointed that the inappropriate view of the renovation and modernisation spending of a tangible asset leads to the inappropriate economic situation of the operating economic units in agriculture.

Key words: tangible assets in agriculture, renovation, improvement, modernisation, valuation.

Introduction

This article presents selected problems connected to the valuation of tangible assets in agricultural activity. One of the most often encountered problems connected with the operation of agricultural machines and devices is the valuation of the costs of renovation and modernisation. The unclear difference between renovation and modernisation results in not always the correct valuation of tangible assets, both for tax and accountancy regulations. In this article these problems were illustrated with an example of a big agricultural production co-operative. Units running agricultural activities often use machines and production devices of great worth and having a long service life. The rate of depreciation for agricultural machines is 14%1. In practice these machines are used for many more years than 7 (as results from the rate). This presents a problem - should the machine still be depreciating after the seventh year or not? Taking into consideration the tax law, it seems that cessation of depreciation is a proper solution. A business unit has the right to include the cost of the purchase price only. However, when it comes to accountancy law, the most important thing is an economic criterion content. Because of that the depreciation period should mirror the mode of consumption of the economic benefits connected with the usage of a tangible asset.

Renovation or modernisation expenses pose another problem. In practice it is difficult to establish explicitly whether a given expense is for renovation (that is restoring its former value) or modernisation (raising the value of usage).

Categorisation of a given expense to the costs or investments influences:
- value of the presented balance sheet of tangible assets;

1 A list of the depreciation rates can be found in an annex to the corporate income tax law (Ustawa…, 1992).
- the amount of depreciation;
- the financial result;
- income tax;
- the overall assessment of the situation of the economic unit.

The Polish tax laws do not consider expenses for the modernisation of tangible assets as costs of obtaining revenues when they are incurred. They increase their initial value\(^2\), which forms the basis for the capital allowance calculation.

If work does not fulfill the requirements for modernisation then incurred costs are accounted for as renovation, resulting in the complete or partial restoration of the former technical and functional condition of the tangible asset. This may have serious tax consequences. According to article 16 sec. 1 item 1 lit. c of the corporate income tax law, to the deductible costs do not belong the costs of tangible assets improvement, which according to the art. 16g sec.13 of this law increase the value of tangible assets that is the basis for calculating the depreciation expenses (Ustawa..., 1992). Conversion, expansion, reconstruction, adaptation and modernisation expenses belong to the costs of tangible assets improvement.

A similar situation appears in the case of leased tangible assets investments. Expenses with characteristics of a typical renovation make direct deductible costs per day of incurring costs. Cost of modernisation of a leased tangible asset is "an investment in leased tangible asset" and is subject to depreciation expense as defined in the tax law. If the subsidy covers the modernisation cost, depreciation expense cannot be considered a deductible cost.

The result of improvement, (the growth of the functional value), must be objective, measurable and with an objective indicator. This means that as a result of work actually undertaken, a technical potential of a tangible asset and its functionality for every unit using it in similar conditions have increased in comparison to the state from before the improvement. According to corporate income tax law, the practical value of the day of acceptance (by a taxpayer) of a given tangible asset is a point of reference (Ustawa..., 1992).

**Aim of work, materials and method**

The aim of the study is to show the problems connected to the costs of renovation and modernization of tangible assets in agriculture. Inappropriate classification of those costs could have an impact on the overall assessment of the economic unit. Those problems were analyzed with the usage of the case study method on the agricultural production co-operative example. The main source staff is 2008 annual financial report of the co-operative. Next to that there was also corporate income tax law of the accountancy law used. There were also NSA judicature (The Supreme Administrative Court) used connected to the study field. The basic re-

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\(^2\) The initial value being the cost of purchase or production of a tangible asset is increased by the costs of its improvement, consisting in conversion, expansion, modernisation or reconstruction, etc. (art. 31 sec.1 of the accounting act from 29th of September, 1994 - The Official Journal of Law No. 121, item 591) because they cause the increase of tangible asset value, which is the basis for calculating capital allowance.
search tool was the descriptive method analysis with the use of quantitative and comparative methods.

**Improvement versus the renovation of tangible assets in a court judgement**

Firstly, we should define the term "renovation". This term causes problems in economic practice and that is why we should use the judgement of a court. Courts often deal with controversial matters connected with determining the difference between renovation and the improvement of tangible assets. Thus, definitions of "renovation" and "improvement" should be based on a court judgement. According to the NSA judicature the essence of renovation is to undertake work that restores a tangible asset to its original technical and functional state without increasing its initial value, and which is the basis for calculating capital allowances. Renovation expenses may be classified as deductible costs, provided that this renovation will not result in the increase of a technical or functional value, and in consequence, the initial value of the tangible asset, which is a basis for calculating capital allowance. Another important feature of renovation consist in the fact that it happens in the process of the taxpayer's operation of the tangible asset and is the result of this operation

In the case of the classification of expenses as an investment or renovation, while evaluating, one should take into consideration the changing economic reality and the technological progress that influences, to a large extent, the ways and means of carrying out works that are covered by the term renovation. Renovation works do not always have to (but can) be involved to an ideal restoration of an object's technical condition because more often than not it turns out that materials and technologies that were used are no longer applied as new, because better ones have been introduced in place of them. Under such circumstances one should analize the goal of carrying out those works. Works that are aimed at changing the function or increasing the standard of a given object should be classified within a different category than those which are aimed at repair of an existing, and, to a large extent, worn out devices, during the renovation of which, because of lack of other possibilities, one used better, more up-to-date materials and devices. Admissibility of making allowances for technological progress with no increase of functional value was is confirmed by NSA judicature

In order to acknowledge tangible asset improvement expenses as incurred, one has to establish whether works carried out on the given tangible asset may be classified as conversion, expansion, reconstruction, adaptation and modernization, or are in the character of renovation. It should be emphasized that modernisation and renovation do not exclude each other, eg. like when during the renovation of a building one replaces given elements with new, more up-to-date, thanks to which the building becomes more modern, that is it undergoes modernisation.

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1 NSA sentence, 29th April, 1999, case reference number: I SA/Ld 772/97.
2 NSA sentence, 1st March, 2000, case reference number: NSA/Wr2915/98.
3 NSA sentence, 29th April, 1999, case reference number: I SA/Ld 772/97.
This is why not the taxpayer but the material scope of the undertaken works determines whether a given expense incurred for tangible asset modernisation, or may all be considered as deductible costs or just through depreciation expense. In the case of doubts about the proper categorization of an incurred expense (investment or renovation) it is necessary to call an expert witness, who on the basis of appropriate documentation and examination will voice his opinion about the nature of the incurred costs. On the basis of laws and interpretations presented above one can unquestionably say that the investment expenses will always belong to:

- the costs of building and buying a tangible asset;
- the costs of replacement of an entire asset identified as a separate tangible asset (an inventory item), that is the purchase or the building of a new one with the simultaneous removal of an old tangible asset;
- the costs of a tangible asset improvement, if their amount in a given fiscal year is over 3500 PLN;
- the costs of buying components and peripheral elements with the unit cost of purchase over 3500 PLN;
- the costs incurred for a tangible asset in the period preceding its usage or after it (e.g. for the preparation for usage before starting it or preparation for a sale).

Summing it up, it should be stressed that from the technical point of view all the actions (and costs resulting from them) aiming at restoring an object (tangible asset) to its operating efficiency (technical efficiency) are renovations. However, part of them, if it has a good influence on the increase of the functional value of an object measured with specific indicators, from a tax perspective will be classified as modernisation (Węgrzyn, 2008).

Practical example. An agricultural production co-operative

Problems with the valuation of tangible assets are illustrated with an example of an agricultural production co-operative, which uses different tangible assets (production halls, agricultural machines, tractors and other). Quite often individual tangible assets must be renovated or investment expenses must be incurred (expansion, conversion, reconstruction, adaptation or modernisation).

Within the sum of 30200 PLN there are included the costs of renovation and improvement of all the tangible assets incurred during this period. When an expert auditor checked the financial statements and a detailed analysis was conducted, it turned out that some of the expenses, classified by the co-operative as costs of renovations, increased the functional value of machines or devices.

In reality, it turned out that out that of the total sum of 30200 PLN as much as 24500 PLN unfairly increased the costs of activity. This sum should increase the initial value of the renovated tangible assets.

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7 1 EUR = 3.9810 PLN, this being the exchange rate on 27th. August 2010.
Table 1. The list of tangible assets that were subject to renovation expenses between 2007–2009

<table>
<thead>
<tr>
<th>No.</th>
<th>Tangible asset</th>
<th>Initial value (PLN)</th>
<th>Renovation expenses (PLN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Tractor Tv 500</td>
<td>150000</td>
<td>12000</td>
</tr>
<tr>
<td>2.</td>
<td>Tractor bp3000</td>
<td>178000</td>
<td>4000</td>
</tr>
<tr>
<td>3.</td>
<td>Machine Thp</td>
<td>60000</td>
<td>2200</td>
</tr>
<tr>
<td>4.</td>
<td>Mixer S07</td>
<td>80000</td>
<td>4800</td>
</tr>
<tr>
<td>5.</td>
<td>Production hall</td>
<td>340000</td>
<td>7200</td>
</tr>
<tr>
<td>6.</td>
<td>In total</td>
<td>808000</td>
<td>30200</td>
</tr>
</tbody>
</table>

Improper classification of these expenses resulted in:
- inflating the costs by 24500 PLN;
- underestimating the income tax by 4655 LN;
- underestimating the financial result by 24500 PLN.

Financial result distortion resulted in a distortion of the Co-operative`s profitability. The table below represents the profitability indicators calculated for proper and improper presentation of the renovation expenses.

Table 2. Profitability indicators at proper and improper presentation of renovation expenses, %

<table>
<thead>
<tr>
<th>No.</th>
<th>Indicator</th>
<th>Proper presentation of renovation expenses</th>
<th>Improper presentation of renovation expenses</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>ROA (return on assets) Net income/assets x 100%</td>
<td>6.9</td>
<td>4.9</td>
<td>2</td>
</tr>
<tr>
<td>2.</td>
<td>ROE (return on equity) Net income/ equity capital x 100 %</td>
<td>16.3</td>
<td>13.1</td>
<td>3.2</td>
</tr>
<tr>
<td>3.</td>
<td>ROS (return on sales) Net income/Sales income x 100 %</td>
<td>9.9</td>
<td>7.2</td>
<td>2.7</td>
</tr>
</tbody>
</table>

With the proper presentation of renovation expenses actual profitability is higher by about 2 % than profitability calculated with the improper presentation. In the case of the studied unit it is not a big difference. However, one should remember that if this unit had more tangible assets of greater value, then this difference could have been much larger.

The effect of such events is the presentation of material and information, which is not consistent with the financial realities of the Co-operative, as well as the low income commitment relating to the Tax Office.

Conclusions

1. The aim of this article was to present problems that may occur in economic practice, connected with the valuation of tangible assets in agriculture. These issues concern not only agriculture, but also every other economic unit.
Problems were illustrated with an example of not fully clear differences between the renovation and improvement expenses.

2. From a taxation point of view the physical scope of works is a secondary issue when establishing whether these works should be classified as renovation or improvement. From a taxation point of view the key criterion is the increase in functional value of a tangible asset being the result of these works. If a functional value of a tangible asset, measure with any objective indicator, that has increased, we deal with investment, if not - with renovation.

3. To sum up, whenever one carries out works connected with tangible assets, they should establish, which inventory item is this tangible asset and in relation to this object determine whether the functional value has increased. The valuation of increase in functional value relating to the tangible asset as a unit and its functional value at the day of its acquisition.

**Literature**


**PRAKTINĖS MATERIALIŲ VERTYBIŲ VERTINIMO PROBLEMOS ŽEMĖS ŪKYJE**

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**Santrauka**

Tyrimo tikslas yra išanalizuoti materialinių vertybų renovacijos ir modernizacijos kaštų problemas žemės ūkyje. Tyrime buvo naudotas atvejo tyrimo metodas, taip pat aprašomoji analizė, naudoti kiekybinis ir palyginimo metodai. Tyrimo rezultatas – nustatyta, kad netinkamas požiūris į materialinių vertybų renovacijos ir modernizacijos išlaidas sąlygoja žemės ūkio verslo subjekto ekonominės situacijos blogėjiną.

_Raktiniai žodžiai: materialinės vertybės žemės ūkyje, renovacija, gerinimas, modernizacija, vertinimas_