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# Expected Tax Changes in 2019 with Impact on Business Entities in the Czech Republic

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## Abstract

**This paper deals with selected issues of tax changes which can be expected in 2019 in the Czech Republic and which will impact mainly business entities. From 1 January 2019, several important changes have been made in the Czech Republic in the area of direct and indirect taxes and a number of other significant changes for entrepreneurs will occur from 1 April 2019 when the so-called tax package is approved. The paper focuses on some selected tax changes that are valid and approved since 2019; as a part of the tax package, these include mainly the changes to the Act on Income Tax, the Act on Value Added Tax or the Act on Excise Taxes. The discussed tax package brings changes that are primarily positively evaluated, including incorporation of European Union regulations. Further significant changes not only in the taxation but also in the accounting can be expected in 2020-2030.**

**Key words:** *tax, income tax, excise tax, value added tax, European directives, business entity*

## 1. Introduction

In the course of 2019, other important changes in the taxation were discussed in the Czech Republic as a part of the so-called “2019 tax package", which was approved by the Chamber of Deputies in December 2018 and returned by the Senate in January with several amendments that were discussed in March 2019. Parliament adopted them on 12 March 2019 in the wording approved by the Chamber of Deputies on 21 December 2018. The publication of tax changes in the Collection of Laws can be expected in March 2019 and their entry into force probably from 1 April 2019. The tax package, which should be in force in the Czech Republic from 1 April 2019, includes amendments and changes to important legal regulations, especially the Act on Income Tax (ITA), the Act on Value Added Tax (VAT Act), the Tax Procedure Code, the Insolvency Act, the Act on the Excise Tax, the Act on International Cooperation in Tax Administration, the Act on Financial Administration, the Act on Customs Administration and others. The package also introduces some measures against aggressive tax planning, especially by multinational groups. These include rules such as the interest deduction limit, exit taxation rule, controlled foreign companies rules or general anti‑abuse rule. These measures, however, apply only to legal entities: that is to all taxpayers who are subject to corporate income tax in one or more member states, including permanent establishments of taxpayers who are tax residents of a third country for tax purposes if they are located in one or more member states [Daňový balíček, 2019].

## 2. Changes in direct taxes of business entities from 1 April 2019

In the area of income taxes, the tax package incorporates, for example, changes to EU regulations restricting the spillover of taxable profits to countries with lower tax burdens, for instance by introducing a tax deductibility limitation for "excessive borrowing costs" that will be used for the first time for a tax period starting on 1 April 2019. In relation to the transposition of the Anti-Tax Avoidance Directive (ATAD), several measures are proposed against tax evasion, especially for large corporations. These, for example, include the limitation of interest deductions from the tax base to 80 million CZK or 30% of EBITDA, taxation on relocation of assets abroad without changing the ownership, taxation of controlled foreign companies or rules against exploiting tax system mismatches.

There is also a new obligation for corporations that pay larger profits shares or other income abroad, which are normally subject to a withholding tax but are exempt or are not subject to the taxation, to notify the tax administrator of such payment. The aim is to obtain and use other relevant data for the obligatory automatic exchange of information under the legal regulations by which the Czech Republic is bound. Another reason is the relatively high outflow of income from foreign direct investment, which is unique in international comparison. All these measures apply only to legal entities, namely to all taxpayers who are subject to corporate income tax in one or more member states, including permanent establishments of taxpayers who are tax residents of a third country for tax purposes if they are located in one or more member states.

Changes to the ITA will also affect the rules for claiming the tax deduction for research and development. Entrepreneurs will no longer have to prepare the required project documentation before implementing research activities but in the deadline for filing a tax return for the tax period for which the taxpayer first reports the claim for the deduction. When starting a research project, there is a new obligation for entrepreneurs to send a simple report on the commencement of the work to the tax office, which clearly specifies the date from which the entrepreneur is allowed to claim the research project expenses in the form of this tax deduction. The notice will indicate the name of the research and development project reflecting its general focus and the basic identification data of the taxpayer, which is the business name, or the name and address of the taxpayer’s registered office. The financial administration will now only assess the activities and costs included in the deduction from the decisive point in time, which is the sending of the notice. The activities prior to sending the notice will not be eligible for the deduction and will therefore no longer be the reason for rejecting the project. It will also simplify the regime of persons who are responsible for project development and implementation. Proving the date of commencement of work on the research project has been one of the frequent problems in tax audits [MF ČR, 2019].

Under the Act No. 586/1992 Sb. on Income Tax, a significant and positive change for entrepreneurs - individuals can also be expected, which concerns the proposal to increase the limits for so-called lump sum expenses pursuant to the Section 7 [7] of this Act. It is namely the increase in income thresholds to 2 million CZK for effective claiming of lump sum expenses for self-employed individuals. The repeated increase in the thresholds is good news especially for smaller entrepreneurs and sole traders in the Czech Republic, for whom the increasing bureaucracy in business entails the greatest concern and high administrative burden.

The upcoming tax package should from 2019 return the maximum amount of expenses claimed by a percentage of the income to the level applicable in 2017. The lump sum expenses can be used in the Czech Republic by entrepreneurs - individuals even with higher incomes, but the maximum expenses claimed cannot exceed 2 million CZK. The newly approved limits are as follows:

- for 80% lump sum, the maximum expenses claimed cannot exceed 1.6 million CZK
- for 60% lump sum, the maximum expenses claimed cannot exceed 1.2 million CZK
- for 40% lump sum, the maximum expenses claimed cannot exceed 800,000 CZK
- for 30% lump sum, the maximum expenses claimed cannot exceed 600,000 CZK

Self-employed individuals in the Czech Republic who use lump sum expenses in their business will also be able to continue to benefit from a discount on a spouse living with the taxpayer in a common household if the spouse does not have his/her own income exceeding 68,000 CZK for the taxable period at the amount of 24,840 CZK pursuant to Section 35 ba) of the ITA, and the taxpayer can also use the tax benefit for dependent children living with the taxpayer in a common household, pursuant to Section 35c) of the ITA.

Lump sum expenses under Section 7 [7] of the ITA benefit the self-employed individuals for many reasons. The main reason is often a lower tax liability due to generously set lump sum expenses. When the actual expenses of entrepreneurs identified from their records are lower than the lump sum expenses, it not only brings savings on personal income tax but also significantly contributes to savings in social and health insurance payments, including the payment of lower advances for this insurance. The great advantage of lump sum expenses is also their simplicity, clarity and minimal administrative burden. A large part of self-employed individuals uses the lump sum expenses even if the actual expenses are slightly higher. The lump sum expenses save entrepreneurs not only time, but keeping records of incomes and receivables is also easier than keeping tax records.

Over the last 13 years, the expenses as a percentage of income have changed significantly in the Czech Republic. In 2005, the lump sum expenses for agricultural production were only 50%, for trades and other businesses they amounted to 25% and for rent the rate was only 20%. In 2006, there was a significant increase in the lump sum expenses to following figures: 80% for agricultural activity, 60% for handicraft trade, 50% for trade, 40% for other businesses and 30% for rental incomes. Other adjustments to lump sum expenses occurred in 2009 and 2010. Furthermore, since 2013, there has been a substantial change in a form of restrictions, due to which only some self-employed individuals have been able to use the lump-sums expenses from 2013. In 2013, restrictions for the 30% and 40% lump sum expenses begun to be applied:

- 30% lump sum expenses (maximum expenses claimed cannot exceed 600,000 CZK),
- 40% lump sum expenses (maximum expenses claimed cannot exceed 800,000 CZK).

From 2013 to 2016, restrictions on claiming some tax reliefs when using lump sum expenses, namely a spouse discount and a tax benefit for dependent children, were regulated in the Section 35ca of the ITA[1]. In 2017, the percentage of lump sums expenses remained unchanged, but a choice could be made between two methods of establishing the lump sum expenses. The old method had made it possible to use lump sum expenses for all groups of self-employed individuals whose income did not exceeded 2 million CZK per year. Lump sum expenses could be so claimed up to the amount of 1.6 million CZK for entrepreneurs under 80% lump sum expenses, up to 1.2 million CZK for entrepreneurs under 60% lump sum expenses, up to 800,000 CZK for entrepreneurs under 40% lump sum expenses and up to 600,000 CZK for entrepreneurs under 30% lump sum expenses. However, when using the old method, it was not possible to claim a child or spouse discount at the same time.

As of 2018, only the new system with a maximum limit is valid, which is also applicable in 2019, see Table 1 [Hakalová, Pšenková, 2019]. Based on preliminary calculations of the Ministry of Finance of the Czech Republic, it is expected that the collection of personal income tax will decrease by 1.5 billion CZK per year. The loss of income in the state budget should be compensated by the start of the remaining phases of electronic registration of sales. Entrepreneurs can use lump sum expenses as they have done so far even with higher income, but they can only claim expenses derived from the income threshold, which are listed in the Table 1.

The original proposal in the tax package submitted by the Ministry of Finance of the Czech Republic also included the abolition of the taxation of employees' income by the so-called super-gross wage method and the introduction of a progressive rate of the personal income tax at the amount of

[1] *If the taxpayer under Section 7 claims expenses to the partial tax base pursuant to Section 7 (7) or under Section 9 claims expenses pursuant to Section 9 (4), and the sum of the partial bases for which the expenses were claimed in this manner is higher than 50% of the total tax base, the taxpayer is not allowed:*
*a) to reduce the tax under Section 35ba (1) (b),*
*b) claim tax benefits.*

19% or 24%. This conceptual change in the taxation of individuals was eventually omitted from the proposal, and the principle of super-gross wage is still used to calculate the income tax in the Czech Republic – that is the tax base still equals to the income from dependent activity increased by the amount corresponding to the social security, state employment policy and public health insurance contribution, which the employer is obliged to pay from the income. The personal income tax rate in the Czech Republic is still 15%.

**Table 1.** Lump sum expenses in 2018 and 2019 under Section 7 [7] of the Act on Income Tax

| **Lump sum expenses in %** | **2018** maximum expenses claimed cannot exceed | **2019** maximum expenses claimed cannot exceed |
|---|---|---|
| 80% of income from agricultural production, forestry and water management, and income from handicraft industry | 800,000 CZK | 1,600,000 CZK |
| 60% of income from other industry and trades | 600,000 CZK | 1,200,000 CZK |
| 40% of income from other business activity or other self-employed activity under special legislation | 400,000 CZK | 800,000 CZK |
| 30% of the income from rents of business property | 300,000 CZK | 600,000 CZK |

## 3. Other changes in the taxation from 1 April 2019

The tax package also regulates changes to other acts, such as the Act on Excise Tax and the VAT Act. For example, as a part of excise taxes, another non-harmonized tax (in addition to raw tobacco tax) is introduced – the taxation of so-called heated tobacco products, which will be labeled with the tobacco label just as other tobacco products. The excise tax rate for heated tobacco products is set at the same level as for fine-cut tobacco or other smoking tobacco (2,236 CZK/kg), i.e. 2.236 CZK/g of the tobacco contained in these products. The regulation of the taxation of heated tobacco products is based on the existing Act on Excise Tax, which regulates the "traditional" tobacco products. The excise tax on heated tobacco products will weight-based, with the same tax rate as smoking tobacco.

For example, under the VAT Act, the tax package newly responds to the threat of higher heat prices in the Czech Republic in 2019 by reducing the first reduced VAT rate, i.e. 15%, for heat and cold to the second reduced tax rate, i.e. 10%, but with the effect from 1 January 2020. While some VAT changes are not certain yet, the reduction in VAT on train, bus or cable car fares, which falls under the second reduced VAT rate of 10%, has already been approved since 1 January. 1. 2019. A further reduction in VAT rates may also be brought by the amendment to the Act on Registration of Sales, which is currently in the first reading in the Chamber of Deputies. The amendment also covers the introduction of the third and fourth EET wave or an off-line regime. As for vouchers, or their related transactions, new harmonized rules for the application of VAT are being introduced. The rules will vary according to the types (properties) of the vouchers, namely single-purpose and multi-purpose vouchers. Transfers of single-purpose vouchers, which includes vouchers for the supply of goods or services that are sufficiently known in advance, are subject to the same rules as the supply of goods or services covered by the voucher.

There will also be several significant changes to the Mini One-Stop Shop regime. Digital service providers in the European Union who use Mini One-Stop Shop regime to pay VAT in the member states will be newly governed by the rules for the issuance of tax documents valid in the state in which they are registered (the state of identification or registration). The range of individuals who will be able to use the regime outside the EU is also expanding.

## 4. Conclusion

The paper dealt with several valid and expected tax changes in the Czech Republic under the so-called 2019 tax package. The changes in the taxation mentioned in this paper can be considered positive from the point of view of business entities due to the reduction in the administrative burden and tax savings of taxpayers in the personal and corporate income tax and also savings in the value added tax. The tax package is a set of amendments that amend selected acts such as the Tax Procedure Code, the VAT Act and the ITA. The Ministry of Finance of the Czech Republic expects from the tax changes even greater clarity in tax legislation and acceleration of the legislative process. The Association of Small and Medium-Sized Enterprises and Crafts of the Czech Republic sees the most favorable changes, for example, in introducing a change in deductions for research and development, which applies especially to large corporations. For smaller business entities, the positively evaluated change is the increase in the maximum income limit when using lump sum expenses. Higher limits will be applicable for the tax period of 2019 as the transitional provisions stipulate that the higher limits will be used for the first time for the tax period in which the act comes into effect.

## References

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# The Financial Analysis of Selected Agricultural Enterprise

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## Abstract

**The constant development and changes in the economic environment in which companies exist are causing uncertainty and risk. The main objective of business entities is to generate profit by increasing investment capital. All this is reflected in the financial situation of the company, which represents the company externally. To be prosperous, a firm must have a good and stable financial position. The financial and economic analysis examines the business indicators involved in the financial situation and the business management. It is a tool for assessing the company's prosperity and allows to estimate the future position of the company. The aim of this article is to characterize the financial analysis of the enterprise from the theoretical point of view and then to apply it practically to the selected agricultural enterprise Roľnícke družstvo Trhovište for the years 2016, 2017 and 2018.**

**Key words:** *financial analysis, ratio indicators, ex ante analysis*

JEL Classification: Q12, Q14, M41

## 1. Introduction

Financial analysis is used to determine the health of a company, identify weaknesses that lead to the problems and determined the strengths to be used. Financial analysis is an assessment of past, present and foreseeable future financial management of the company. Financial analysis is aimed at assessing the financial policy of the company and facilitate future decisions. It is carried out through the analysis of financial statements, examines the evolution or trend that the company recorded and which can be compared with other companies in the same area and analyzed by specific indicators.

Analysis of corporate activities is multifaceted and diverse. It includes the examination of complex processes and phenomena in the context of the transformation process. The analysis is a tool for exploring and evaluating these processes, the conditions and influences that operate here. Effective method of analysis therefore assumes proactive and differentiated treatment that results from the specific conditions and the objectives pursued. From a user perspective, financial analysis is oriented to the management of the company, owners and creditors. In spite of the particularities of financial analysis, it is necessary to ensure common principles of analysis - targeting, complexity, specificity, systematicness, objectivity and criticality - in every business entity.

Analysis means decomposition of an object or phenomenon into individual components, which makes it possible to recognize its mutual conditionality. It indicates the general scientific - research

method based on the decomposition of a whole into individual parts. Its aim is to identify the main needs and characteristics of objects.

## 2. Literature Review

In general, the financial analysis is a test of any economic activity where money and time have a major role, which means that different facts are the object of the analysis [Šlosárová, 2012]. In the case of a company, financial analysis means a comprehensive analysis of its financial situation. Financial analysis by E. Kislingerová [2012] can be understood as a set of activities designed to obtain a comprehensive assessment of the financial situation of the company. Financial analysis is processed by the economic department in the company. According to I. Kraft [2012], financial analysis is a sophisticated part of financial management and a method of evaluating the financial management of a company, which processes data capturing business activities predominantly in monetary units.

The need to undertake a financial analysis was highlighted by Gavere and Pottier [2005] in an article in which they conducted research on 80 publicly traded assets and liabilities insurers, using capitalization, liquidity, asset risk and profitability indicators. Needles and Power [2007] reported that the accounts associated with property transactions is the financial situation in terms of maintaining the capital, going concern, efficiency and liquidity is very important for interested parties such as business partners, investors. For this reason, the owners of an entity's financial statements and require legal standards in many cases, dictate the form, as explained Bokšová, Strouhal [2015] and Vomáčková [2009].

Analysis of the financial situation is the basis of the analysis of the economic performance of the enterprise and usually continues in primary areas such as effectiveness, efficiency, utilization of production capacity, management. The financial analysis shows the weaknesses and strengths of the company, is a tool for diagnosis and provides basic information management and business owners [Vlachynský, 2009]. Sedláček [2009] understands the financial analysis of the company as a method of evaluating the financial management of a company, during which the acquired data are sorted, aggregated and compared with each other. The main purpose of the financial analysis is to express the company's assets and financial situation and prepare inputs for internal management decisions. Complexity and ongoing implementation are essential requirements for financial analysis [Hrdý, 2009].

A review of the company's financial situation declares a system of financial indicators that must be in order and designed to reflect all the important aspects of the financial situation. Ratio indicators are used to describe the financial situation. Ratio indicators allow a comparative analysis of the company with other companies or with indicators for the relevant area [Baran, 2015].

Financial analysis is used to predict the future position of the enterprise. Predictive models have a common characteristic in that they provide accurate predictions if the prediction horizon does not exceed an average of one year. Beyond this point, the accuracy of prediction models deteriorates thus defined period increases. All of the studies that have been conducted on this topic by Z score [Altman, 1968] to study Geng et al. [2015] confirm this assumption.

Understanding the investment behavior of firms is crucial for corporate financial management. On the one hand, investment positively affects the profitability and liquidity, as well as cash [Perić and Kinurkin, 2015]. On the other hand, the ownership structure [Farla, 2014] and the leverage effect [Lang et al., 1996; Maçs Nunes et al., 2012] influence the dynamics of investment. The role of liquidity is controversial in supporting growth companies [Baum et al., 2008]. Acharya et al. [2007] show that liquid companies can protect their future investments against market risks, other authors believe that highly liquid firms delay their investment decisions. As a result, liquidity may have a negative impact on investment. Capital management is an important determinant of the value of the company [Kieschnick et al., 2013]. Investments in net operating capital have both positive and negative effects on the company's performance. As alleged Deloof [2003], greater investment in net working capital enable companies to increase sales and profitability. The provision of trade credits

affects sales positively [Brennan et al. 1988; Petersen and Rajan, 1997; Emery, 1984]. Larger stocks can reduce supply costs and price volatility, as well as help from loss of business due to lack of products [Blinder and Maccini, 1991].

## 3. Financial analysis of the selected company Roľnícke družstvo Trhovište

Roľnícke družstvo Trhovište was founded in 1994 and headquarters in the village Trhovište district Michalovce. Managed in corn - sugar beet area on various quality soils in the cadastral areas Trhovište, Bánovce nad Ondavou, Horovce, Ložín and Pozdišovce. The company employs 34 employees in all areas. The enterprise is engaged in the production of milk and beef. In the primary production of plants, enterprise is engaged in the production of winter wheat, oilseed rape, maize, spring barley and bean soy. Last but not least, it grows fodder such as lucerne, arable grass and pasture for the herd.

The methodology

- Horizontal analysis - Golden rules
- Analysis of costs, revenues, profit and expense
- Analysis of liquidity, activity, profitability and indebtedness indicators- ratio indicators
- Ex - ante analysis of the situation of the company: Altman method
  Beerman's Discriminatory Function
  Solvency index

**Table 1.** Golden Rule I [Source: author's own elaboration]

| | **2016** | **2017** | **2018** |
|---|---|---|---|
| **Long-term assets (LTA)** | 1 340 745 | 1 560 090 | 1 741 912 |
| **Stockholder Equity (SE)** | 1 306 456 | 1 461 240 | 1 485 430 |
| **Long-term debt (LTD)** | 154 157 | 320 260 | 303 482 |

***nature of the formula***

| | | |
|---|---|---|
| *LTA-(SE+LTD)>0* | | undercapitalized enterprise |
| *LTA-(SE+LTD)<0* | | overcapitalized enterprise |
| **2016** | -119 868 | overcapitalized enterprise |
| **2017** | -221 410 | overcapitalized enterprise |
| **2018** | -47 000 | overcapitalized enterprise |

According this rule, it is permissible to use only financial resources available to the enterprise for long-term assets. Such sources are stockholder equity and long-term debt. If the total volume of long-term assets is smaller than the volume of financial resources available to the company in the long term, we say that the company is overcapitalized. Pre-requisite is precapitalization, which is a precondition for the firm's stability.

**Table 2.** Golden Rule II [Source: author's own elaboration]

| | **2016** | **2017** | **2018** |
|---|---|---|---|
| **Current assets (CA)** | 768 753 | 1 268 698 | 803 068 |
| **Short-term debt (STD)** | 470 427 | 879 409 | 359 600 |

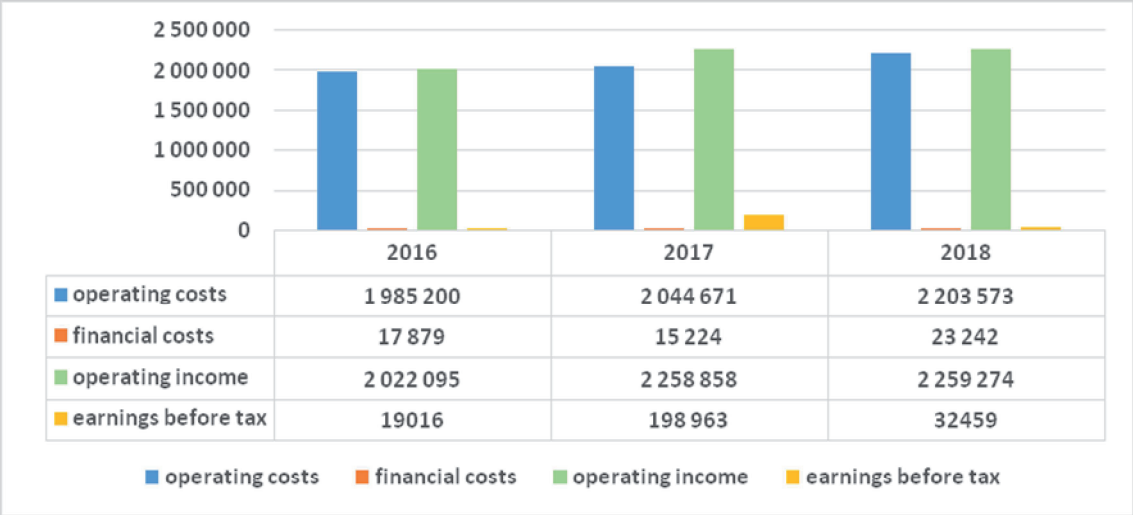
***nature of the formula***

| | |
|---|---|
| CA-STD<0 | Uncovered debt |
| CA-STD>0 | Net working capital |

| | | |
|---|---|---|
| **2016** | **298 326** | Net working capital |
| **2017** | **389 289** | Net working capital |
| **2018** | **443 468** | Net working capital |

From the balance sheet counterpoise that must be maintained on the balance sheet it shows that these relations have an impact on current assets (CA) to be covered mainly by short-term debt (STD).

Current assets are greater than the volume of short-term liabilities. This is due to the fact that part of long-term funds is used to cover current assets. Thus, we can cover mainly the continuing need for inventory. The difference between CA-STD is called net working capital.




| | 2016 | 2017 | 2018 |
|---|---|---|---|
| operating costs | 1 985 200 | 2 044 671 | 2 203 573 |
| financial costs | 17 879 | 15 224 | 23 242 |
| operating income | 2 022 095 | 2 258 858 | 2 259 274 |
| earnings before tax | 19016 | 198 963 | 32459 |

**Fig. 1.** Analysis of costs, revenues and economic results [Source: author's own elaboration]

In terms of the analysis of costs, revenues and profit was an increase in operating costs in 2018 of 158 902 EUR compared to 2017. The personnel costs, services and depreciation were the biggest contributors to operating costs. Personal costs increased by 68 114 EUR, service costs increased by 60 859 EUR and depreciation of fixed assets increased by 35 006 EUR. The cooperative enterprise's net profit decreased from 154 784 EUR to 24 190 EUR.

### *3.1. Ratio indicators*

Analysis of the financial condition of the enterprise is based on the calculation and interpretation of ratios. The principle is a simple mathematical operation, which make it possible to quantify the value of each of the indicators.

The following indicators were used in the financial analysis:

- Liquidity indicators
- Activity indicators
- Indebtedness indicators
- Profitability indicators

**Table 3.** Liquidity Ratios [Source: author's own elaboration]

| | 2016 | 2017 | 2018 |
|---|---|---|---|
| Current liquidity ratio L1 | 0,008656 | 0,08865 | 0,07094 |
| Quick liquidity ratio L2 | 0,362868 | 0,794384 | 0,312484 |
| Operating liquidity ratio L3 | 1,617144 | 1,440522 | 1,333409 |

Mean values 2017: L2 = 0,62; L3 = 1,96; Optimal values L1 (0,2;0,6), L2 (1;1,5), L3 (2;2,5)

When evaluating the farm in terms of liquidity, we must take into account the nature of the business, which affects the structure of assets and liabilities. In 2017, the quick liquidity was situated in the upper quartile and operating liquidity was close to the mean. The company did not have enough financial assets to cover short-term liabilities; therefore it is necessary to continuously monitor this indicator.

**Table 4**. Activity Ratios [Source: author's own elaboration]

| | 2016 | 2017 | 2018 |
|---|---|---|---|
| Inventory turnover time | - | 125,00 | 141,00 |
| Short-term receivables collection time | - | 85,00 | 92,00 |
| Asset turnover time | - | 535,00 | 643,00 |
| Asset turnover | - | 0,68 | 0,57 |

Inventory turnover time in Roľnícke družstvo Trhovište was 125 days in 2017, the average value of this indicator was 102 days, which is rated positively. The funds from stocks are bound effectively. Median collection of short-term trade receivables in the industry is 66 days. The analyzed company achieved a slightly better result than the industry average. It will be necessary to improve the payment discipline of customers. Asset turnover is a ratio that expresses the number of times an asset's turnover is made per year. Compared to the average, the company is in the top quartile, which is positive.

**Table 5.** Indebtedness indicators [Source: author's own elaboration]

| | 2016 | 2017 | 2018 |
|---|---|---|---|
| The degree of self-financing | 0,618453 | 0,515954 | 0,5829138 |
| The degree of indebtedness | 0,301042 | 0,428982 | 0,3614295 |
| Financial Leverage | 1,616938 | 1,938158 | 1,7155194 |
| Insolvency | 3,641511 | 1,951638 | 6,2907676 |

The degree of self-financing expresses the share of equity in total capital. Its value is 0.5829. Therefore, we can evaluate the company as relatively stable. On euro invested capital accounts for roughly 58 cents of the total assets of the company. The company is funded by internal funding sources in the long term.

The degree of indebtedness is indirectly expressed by the degree of self-financing. It expresses the proportion of borrowed funds in the total capital of the company. During the period analyzed, this indicator had a stable development.

Financial leverage - The euro equity accounts for 1.71 euros of total assets. Compared to the previous period, this represents a slight decrease, which is generally negative. Compared to the average value of other approximately equally large companies, the result achieved was average.

Insolvency - this indicator is expressed as a ratio between liabilities and receivables. Analysis of this indicator has shown that there is a real threat of insolvency. 1 EUR of the receivable (only short-term receivables in this case) amounts to 6.29 EUR of liabilities. Indicator value significantly exceeds the maximum recommended value of one. It is therefore a secondary insolvency, when the company's inability to pay for its liabilities is caused by the customers, by their unwillingness to pay. The company honored its commitments through its internal resources. This indicator is in poor condition for the entire period analyzed, in addition to the negative trend in 2018 significantly deteriorated. Short-term receivables were too low compared to short-term trade payables.

**Table 6.** Profitability indicators [Source: author's own elaboration]

| | 2016 | 2017 | 2018 |
|---|---|---|---|
| Return on investment | 0,014992 | 0,0589986 | 0,0160 |
| Return on assets | 0,007192 | 0,0546532 | 0,0095 |
| Return on equity | 0,011628 | 0,1059265 | 0,0163 |
| Return on revenues | 0,010600 | 0,0881648 | 0,0149 |

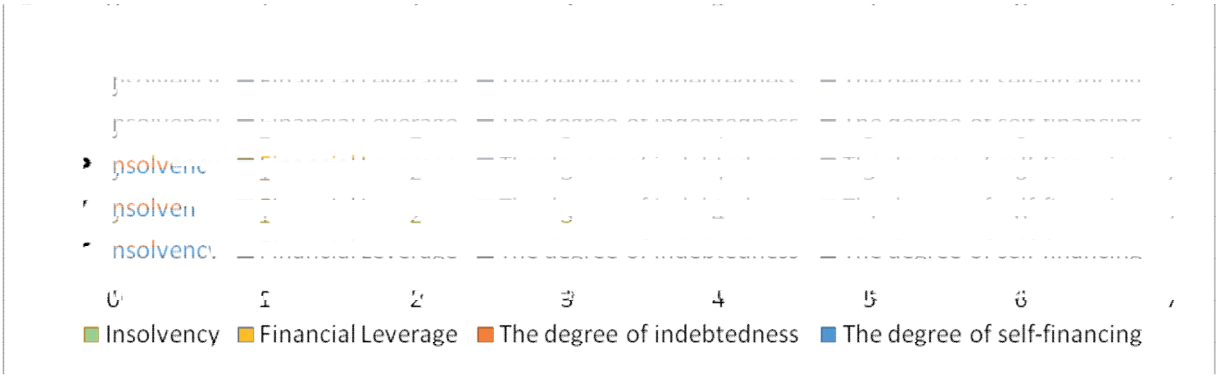



**Fig. 2.** Indebtedness indicators [Source: author's own elaboration]

ROI (Return on Investments) - The return on total capital reflects the intensity of the capital invested in the company. The return on total capital reached 1.6%, which is a significant decrease compared to 2017. Total capital recorded a decline in 2018 compared to last year, with a slight increase in debit interest.

ROA (return on assets) and ROE (return on equity) - Both of these indicators are not performing well. Their value does not even reach the level of EUR 0.5 per euro, either equity or assets. It will be necessary to continue increasing profits. When deciding on potential investments, these had to be rejected because it is possible to achieve higher interest income in banks or investing in safe securities.

Return on Revenue (ROR) is unsatisfactory. The best result was in 2017, when at 1 EUR sales accounted for nearly 9 cents of net income. It will be necessary to increase overall profit.

### *3.2. EX-ANTE analysis*

On the basis of various statistical methods, it is not only possible to evaluate the past development of the company, but also to predict the future of the company.

The analysis used three methods: AltmanZ-score
Beerman discriminating function
Solvency index

These are methods of multidimensional discrimination analysis whereby the classification of enterprises and the prediction of their future are based on a number of indicators.

**Table 7.** Altman Z-score [Source: author's own elaboration]

| | Indicator | 2016 | 2017 | 2018 |
|---|---|---|---|---|
| working capital / total assets | x1 | 0,14120 | 0,13750 | 0,07910 |
| retained earnings / total assets | X2 | 0,00719 | 0,05465 | 0,00949 |
| earnings before interest and tax / total assets | X3 | 0,00900 | 0,07025 | 0,01274 |
| market value of equity / total liabilities | X4 | 2,05437 | 1,20274 | 1,61280 |
| sales / total assets | X5 | 0,67850 | 0,61990 | 0,63470 |

Discriminate function for not-traded companies:

$$Z = 0{,}717 \times x_1 + 0{,}847 \times x_2 + 3{,}107 \times x_3 + 0{,}42 \times x_4 + 0{,}998 \times x_5$$

| | |
|---|---|
| 2016 | 1,675281 |
| 2017 | 1,486929 |
| 2018 | 1,415140 |

**Company rating**

| | | | |
|---|---|---|---|
| | Z> | 2,9 | good financial situation of the company |
| 1,2 | <Z<= | 2,9 | gray zone - possible bankruptcy |
| | Z< | 1,2 | critical situation - probable bankruptcy |

**Table 8.** Beerman discriminating function [Source: author's own elaboration]

| | Indicator | 2016 | 2017 | 2018 |
|---|---|---|---|---|
| depreciation of tangible fixed assets / tangible fixed assets + increase | X1 | 0,30902 | 0,18605 | 0,18672 |
| Cashflow / total liabilities | X2 | 0,00640 | 0,06417 | 0,04632 |
| increase in tangible fixed assets / depreciation of tangible fixed assets | X3 | 0,00000 | 0,75637 | 0,55945 |
| total liabilities / total assets | X4 | 0,30104 | 0,42898 | 0,36143 |
| profit before tax / Sales | X5 | 0,01327 | 0,11333 | 0,02007 |
| profit before tax / total assets | X6 | 0,00900 | 0,07025 | 0,01274 |
| liabilities to banks / total liabilities | X7 | 0,06568 | 0,30113 | 0,13220 |
| Sales / total assets | X8 | 0,67849 | 0,61990 | 0,63468 |
| Inventories / Sales | X9 | 0,41167 | 0,32366 | 0,37963 |
| profit before tax / total liabilities | X10 | 0,02990 | 0,16377 | 0,03524 |

Discriminatory function (valid for one year before insolvency):

$$f = 0{,}217 \text{ x } x_1 - 0{,}063 \text{ x } x_2 + 0{,}012 \text{ x } x_3 + 0{,}077 \text{ x } x_4 - 0{,}105 \text{ x } x_5 - 0{,}813 \text{ x } x_6 + 0{,}165 \text{ x } x_7 + 0{,}061 \text{ x } x_8 + 0{,}268 \text{ x } x_9 + 0{,}124 \text{ x } x_{10}$$

| | |
|---|---|
| 2016 | 0,24738 |
| 2017 | 0,20397 |
| 2018 | 0,22632 |

**Company rating**

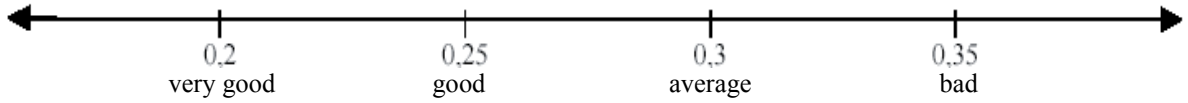


**Table 9.** Solvency index [Source: author's own elaboration]

| | Indicator | 2016 | 2017 | 2018 |
|---|---|---|---|---|
| cash flow / total liabilities | X1 | 0,01 | 0,06 | 0,05 |
| total capital / total liabilities | X2 | 3,32 | 2,33 | 2,76 |
| profit before tax / total capital | X3 | 0,01 | 0,07 | 0,01 |
| profit before tax / total revenues | X4 | 0,01 | 0,11 | 0,02 |
| inventories / total assets | X5 | 0,28 | 0,20 | 0,24 |
| total revenues / total capital | X6 | 0,68 | 0,62 | 0,63 |

Discriminatory function quantifying the solvency index B:

$$B = 1{,}5 \times x_1 + 0{,}08 \times x_2 + 10 \times x_3 + 5 \times x_4 + 0{,}3 \times x_5 + 0{,}1 \times x_6$$

| | |
|---|---|
| 2016 | 0,5833 |
| 2017 | 1,6741 |
| 2018 | 0,6543 |

**Company rating**

| | | | |
|---|---|---|---|
| | **B<=** | **-2** | extremely bad situation |
| **-2** | **<B<=** | **-1** | very bad situation |
| **-1** | **<B<=** | **0** | bad situation |
| **0** | **<B<=** | **1** | Problems |
| **1** | **<B<=** | **2** | good situation |
| **2** | **<B<=** | **3** | very good situation |
| | **B>** | **3** | extremely good situation |

## 4. Conclusion

The paper deals with the issue of financial analysis, which is an essential part of every business and which serves as a basis for measuring the performance of a company. From a theoretical point of view defines what are the basic objectives of financial analysis and briefly describes what the basic tasks of financial analysis. Subsequently, the contribution is devoted to the main indicators of financial analysis of Roľníckeho družstvo Trhovište, to measure organization performance, which is based on the calculation of ratio indicators (profitability, activity, debt and liquidity) and prediction of future development.

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# Value Added Tax Phenomenon – Varieties of VAT Mechanisms

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## Abstract

**The phenomenon of Value added tax, VAT abbreviated, is a topic highly actual, complex and very complicated. Therefore, aim of this article is to describe in its first part how VAT mechanism works and what kinds of VAT chains exist in the EU and how the VAT chain works in different conditions from the seller's point of a view that is VAT payer. Secondary, the VAT mechanism and VAT chain is explained on example of a Slovak condition. A suitable overview for public is to gain general knowledge how the VAT mechanism and chains work which serves as a conclusion of the article.**

**Keywords:** Value added tax, VAT chain, VAT mechanism, VAT rebate, VAT claim, VAT payer

## Introduction

Since last century VAT plays an important role in the field of funding almost every country controlled by Government. Government's income, mainly VAT serves to purchase the public goods to all members of a society.

However, public still does not understand how VAT mechanism works. Therefore, one of the objectives of this article is to present general definitions of VAT and how VAT works in different occasions from the point of view of the seller that is VAT payer. There can be several possible varieties in the EU how a VAT payer must act within the field of VAT Act.

In order to fully understand how VAT works practically, second part of the article is dedicated to the example of a Slovak VAT payer which is in business relation with different subjects, what is its responsibility and duty according to the Slovak VAT Act.

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## 1. VAT mechanism

Value added tax – VAT, is universal, indirect tax and one of the most significant incomes to the National budget of a country. Through the VAT, Government funds public's goods. The history of VAT begins in state of Michigan (USA) in 1953. The very first country that established VAT was France in 1967. Nowadays, every modern economy has applied VAT thank to its immense role in funding of National budget's expenses.

VAT mechanism is based on taxation of supplier's added value that sells his goods to the purchaser which consumes the goods. This is the main idea of VAT, where consumption is rate able by Government. Government is able to secure its income through the VAT as well as to control the public's consumption of certain commodity if needed. For instance, if Government needs to reduce the consumption of alcohol it can raise VAT rate for alcohol, which leads to higher prices that motivate public to not buying that particular commodity because it is expensive.

A situation where appears supplier, purchaser and Government represented by tax authority in order deal with VAT is called the VAT chain. There are 5 most common VAT chains. First two VAT chains are realized in the same EU Member State. Next two chains are realized in two EU Member States, and last one is realized with one EU Member State and third countries.

### *VAT chain with one VAT payer within one EU Member State*

A generalized VAT chain with one VAT payer within one EU Member State works following, a subject A, that is a VAT payer and provides goods to another subject B, that is not a VAT payer. At the moment when services or goods are provided by subject A to the subject B, the VAT payer (subject A) is obliged to raise its total price by VAT. Therefore, subject B pays not just for the service or goods but pays as well the VAT to the subject A. Then VAT payer declares a taxable income and is obliged to pay the VAT to the tax authority. The following figure serves as a visualization of a situation above.

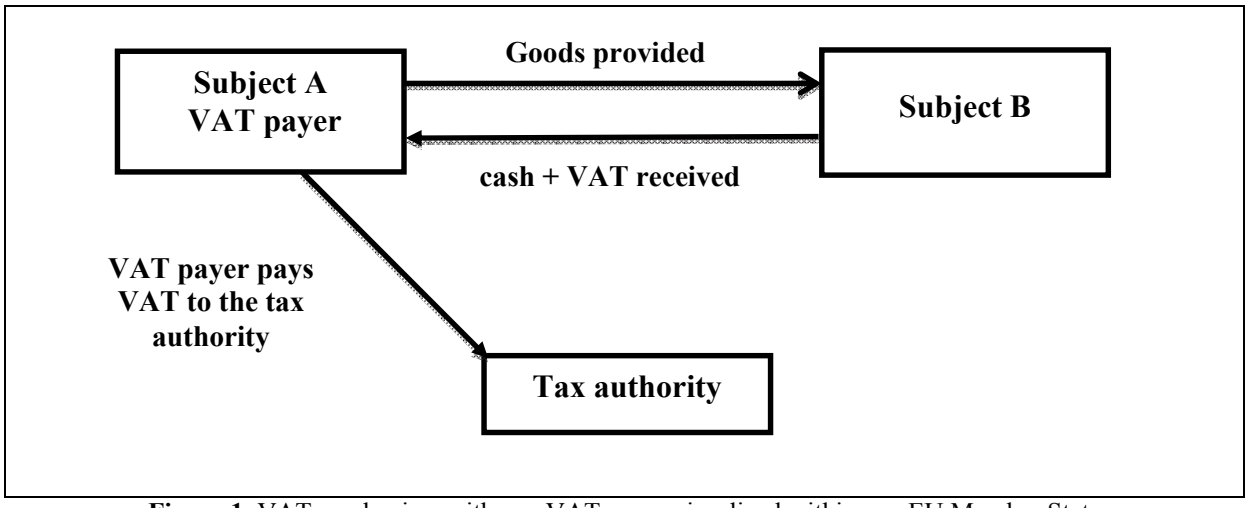


**Figure 1.** VAT mechanism with one VAT payer visualized within one EU Member State
[Source: Authors' own elaboration based on relevant Acts]

### *VAT chain with two VAT payers within one EU Member State*

A situation when two VAT payers within one EU Member State appear in chain is very similar to the situation above. When goods are provided by subject A – VAT payer to the subject B – VAT payer, the mechanism of taxation is the same. Subject A invoices the goods and VAT to subject B, then subject A pays the VAT to the tax authority. The only difference is that VAT payer B claims the VAT rebate from the tax authority.

This situation is applicable as well as for subject A. That means, when subject A is in a role of a purchaser that buys goods and VAT included in the purchase from another domestic VAT payer, subject A claims VAT rebate from the tax authority. Figure 2 serves for visualization of a situation of 2 VAT payers within one EU Member State.

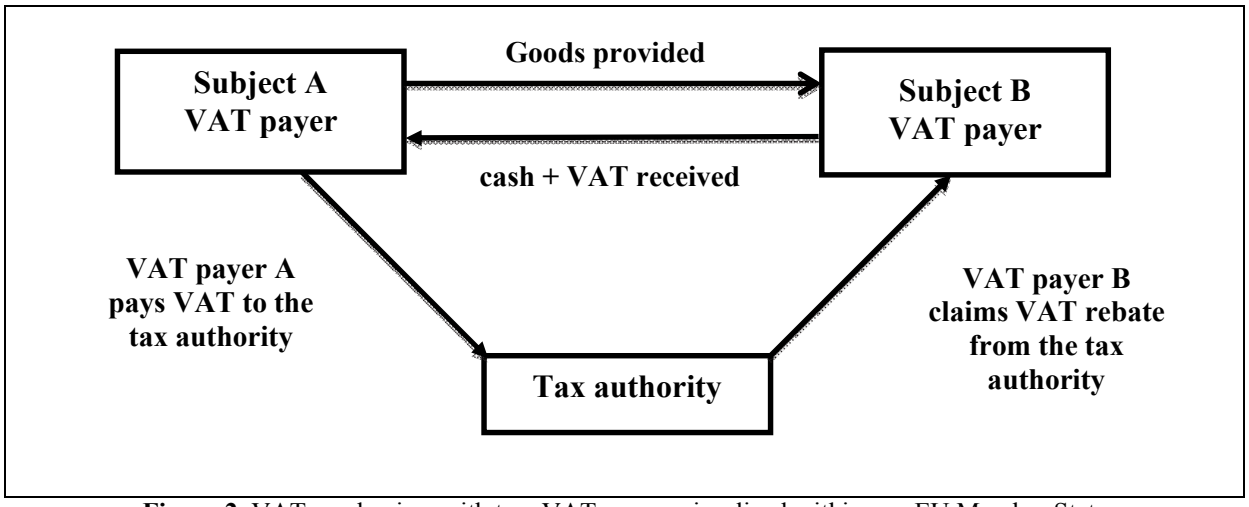


**Figure 2.** VAT mechanism with two VAT payers visualized within one EU Member State
[Source: Authors' own elaboration based on relevant Acts]

### *VAT chain with one VAT payer within two EU Member State*

When VAT payer A from an EU Member State X invoices goods and VAT from EU Member State X to the subject B that is not registered as VAT payer in EU Member State Y, the situation is following. The foreign subject pays domestic VAT, if considered VAT payer A point of view. VAT payer A then pays VAT to the domestic tax authority.

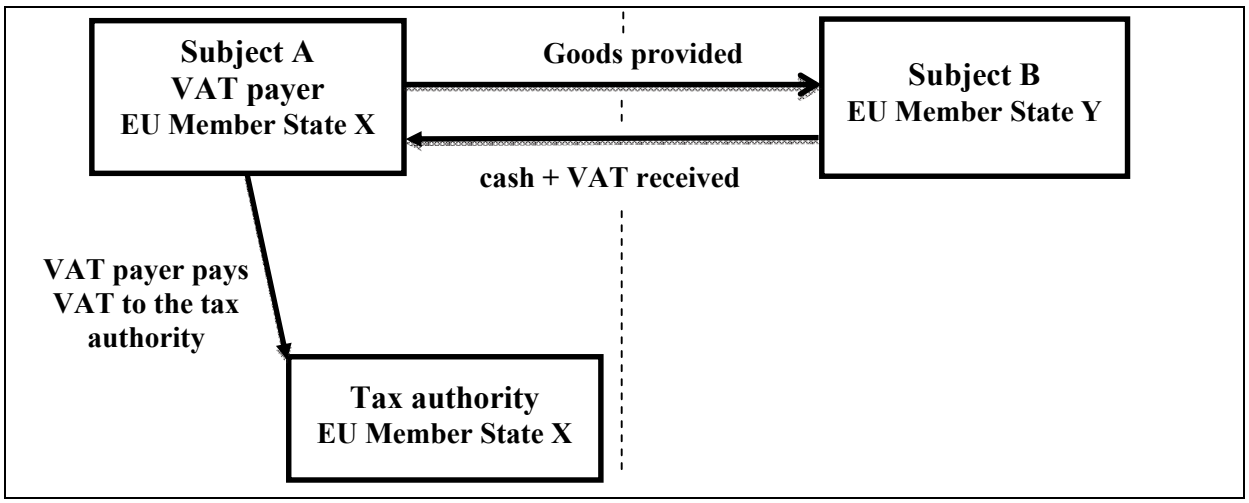


**Figure 3.** VAT mechanism with one VAT payer visualized in two EU Member State
[Source: Authors' own elaboration based on relevant Acts]

### *VAT chain with two VAT payers within two EU Member State*

The situation is quite different when there are two VAT payers each from different EU Member State. When VAT payer A from EU Member State X invoices goods to the VAT payer B from EU Member State Y the mechanism is following, an intra-community delivery and intra-community acquisition are being done. Intra-community delivery and acquisition is a situation when a supplier, VAT payer A from EU Member State X provides its service or goods with VAT rate equal to 0% (Reverse Charge) to the purchaser who is a VAT payer B from EU Member State Y. The purchaser receives the goods in Reverse Charge regime that means the purchaser is obligated to pay domestic VAT to its domestic tax authority while the purchaser has a claim to demand VAT from its domestic tax authority at the same time. In other words, domestic purchaser does not pay or receive any VAT. Therefore we can say that intra-community delivery and acquisition is a situation where VAT is equal to 0 EUR. The following Figure 4 visualizes described situation.

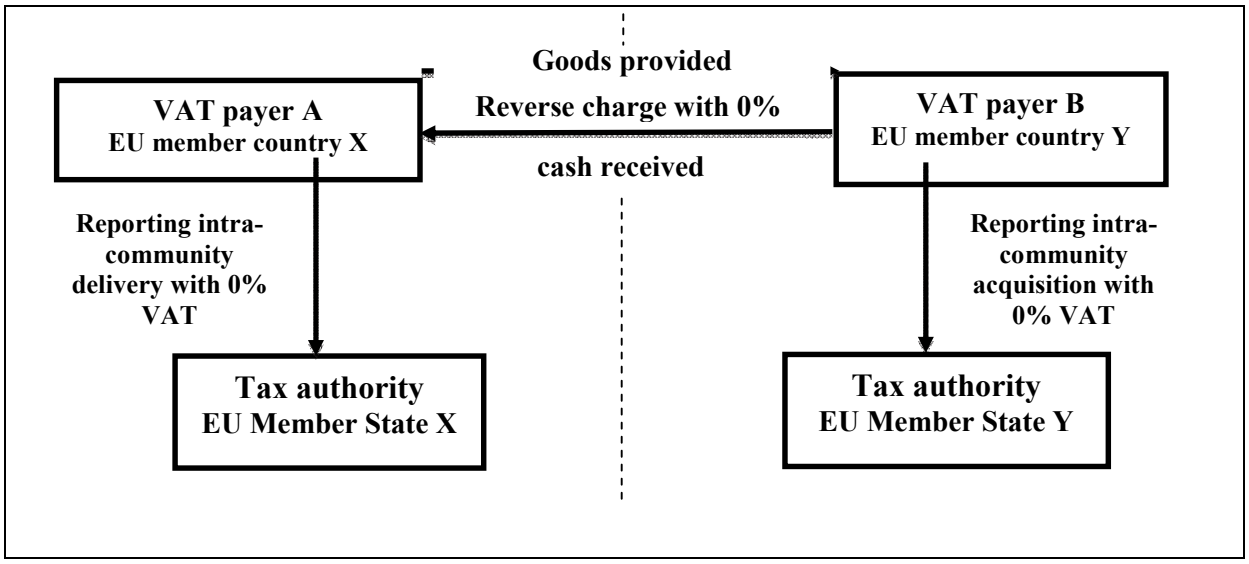


**Figure 4.** VAT mechanism with two VAT payers visualized in two EU Member State
[Source: Authors' own elaboration based on relevant Acts]

If considering opposite situation when subject A is purchaser, that buys goods from another VAT payer from different EU Member State, the situation is following. Subject A perceives goods with VAT from another EU Member State in Reverse Charge regime that means the VAT is equal 0%. Then, the acquisition of goods is taxied by domestic VAT from subject A. But at the same time subject A as domestic VAT payer claims the VAT rebate from its domestic tax authority. Therefore it can be said that the final VAT is again equal to 0 EUR.

### *VAT chain with one VAT payer within from EU Member State and purchaser from the third countries*

When talking about chain of a seller that is VAT payer from one EU Member State and purchaser from the third countries, VAT situation is very different. Every business relation with subject from the third countries is tax-exempt. That means that VAT is equal 0%. VAT payer invoices only the price of the goods that is being sold to the purchaser from the third countries, therefore it can be said that does not pay the domestic VAT.

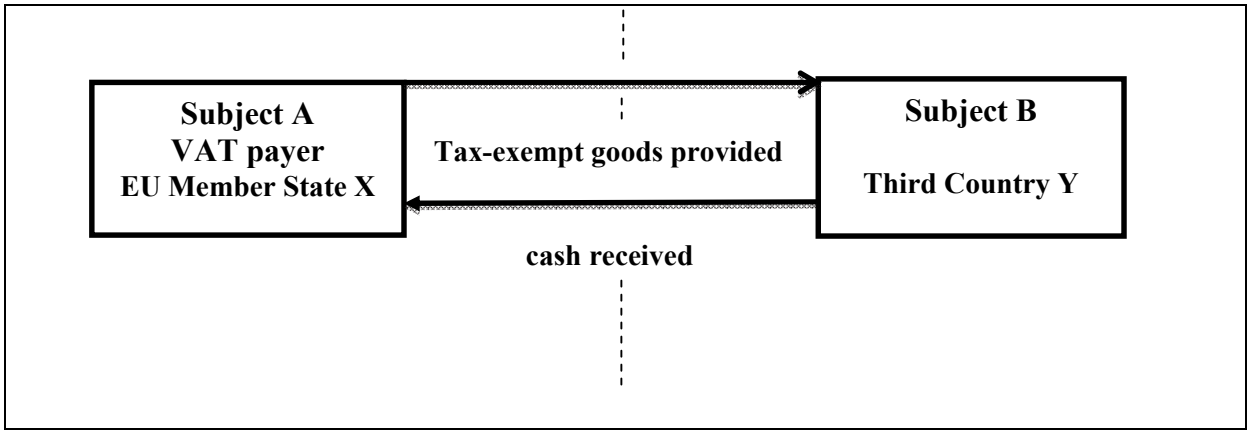


**Figure 5.** VAT mechanism visualized with one VAT payer from one EU Member State and purchaser from the third countries
[Source: Authors' own elaboration based on relevant Acts]

### *VAT chain with one VAT payer within from EU Member State and supplier from the third countries*

The purchase system of the goods from the third countries is following. Domestic VAT payer, the subject A purchases goods from the third countries with third countries VAT included. In this situation the third country's VAT is equal to 0%.

When the goods arrive to the customs of the Slovak republic, the customs calculates the Slovak VAT and custom duty that have to be paid by the purchaser. When the customs debt is paid, the goods released to the purchaser. Because of the fact that the purchaser is Slovak VAT payer, the purchaser claims VAT rebate that has been paid the in the customs.

## 2. VAT simulations

As already mentioned in the introduction second aim is to reflect every theoretical parts above into the practice. The simulations consist of a subject A from Slovakia that is one of the EU Member States. The subject A is a VAT payer in Slovakia that sells the goods. General VAT rate in Slovakia is 20%. This simulation does not calculate with any special VAT regime. Therefore the example describes the sale of one particular commodity with VAT rate of 20% without considering any special situations. Price of the goods is 1.000 EUR.

During the month the subject A realizes several businesses. Firstly, supplier sells the goods to the Slovak citizen, non-entrepreneur subject n. 1. At the moment when the goods is sold, the subject A is obliged to invoice extra 20% of the goods´ price, what represents the VAT. In other words supplier is invoicing 1.200 EUR.

The subject A sells the goods to another Slovak subject n. 2. Another subject is legal entity, Slovak VAT payer. The situation is the same as in the case of the Slovak citizen. The subject A invoices extra 20%, therefore total price on the invoice is 1.200 EUR. The only change is the purchaser that is Slovak VAT payer is allowed to claim the VAT rebate. Because the article is focused only on a point of the seller's view in VAT chain, the further explanation of purchaser's next steps in the VAT chain are not mentioned.

Another business is being done, when the subject A purchases goods from the supplier – Slovak VAT payer that figures as subject n. 3. Total price of the goods is 1.200 EUR, 20% VAT included.

After purchasing the goods, the subject A sells the same goods to the purchaser – subject n. 4 that is resident in the another Member State, for example Austria. Subject n. 4 is a VAT payer in Austria. An intra-community delivery is being done by the subject A. Based on the Value Added Tax Act, the subject A invoices 1.000 EUR as a price of the goods and 0% Slovak VAT. This is situation is known as a reverse charge regime.

The subject A decides to purchases the goods from the subject n. 5 that resides in France. The subject n. 5 is a VAT payer in France. The condition is the same as in the case with subject n. 4. The only difference is that the subject A is in the role of a purchaser, not in the role of a seller. The subject n. 5 invoices goods with 0% of France VAT. The intra-community acquisition is being done by the subject A. The situation of reverse charge regime is being done. Duty of the subject A is to realize self-taxation of the purchased goods by 20% Slovak VAT. Because of the fact that the subject A is Slovak VAT payer, the subject A claims the 20% VAT rebate from Slovak tax authority at the same situation. Therefore the outcome is that the subject A does not pay any VAT and does not receives any VAT from Slovak tax authority.

During the month the subject A realizes last but one purchase from the third country, for example USA. The USA VAT is equal to 0%, therefore total invoiced price of the goods is 1.000 EUR. The subject n. 6 that resides in the USA sends the goods to the Slovak republic. Then the goods arrive to the Slovak customs that calculates 20% Slovak VAT and custom duty. After the payment of the customs debt by the subject A, the customs releases the goods and the subject A receives the goods.

The last business in the month that the subject A has made is selling the goods to the third country, for example China to the subject n. 7. According to the Value Added Tax Act, the subject A invoices 1.000 EUR as a price of the goods and 0% Slovak VAT.

The subject A is obliged to give the VAT declaration, control report and summary report to the Slovak tax authority within the 25th day of the following month. Each business that has been realized during the month must be captured in the control report. The subject A is obliged to give the summary report as well, because of the fact that summary report records every intra-community delivery by the subject A. The VAT declaration notices the subject's A VAT situation. In other words, the VAT declaration registers if the subject A has a tax liability, tax claim or the taxi s equal to 0. Following Figure 5 summarizes all 7 businesses that the subject A made during the month.

| | **Tax claim (EUR)** | **Tax liability (EUR)** |
|---|---|---|
| Subject n. 1 | - | 200 |
| Subject n. 2 | - | 200 |
| Subject n. 3 | 200 | - |
| Subject n. 4 | - | tax-exempt (§ 43) |
| Subject n. 5 | 200 | 200 |
| Subject n. 6 | 200 | - |
| Subject n. 7 | - | tax-exempt (§ 47) |
| Total | 600 | 600 |

**Figure 5.** VAT calculation [Source: Authors' own elaboration based on relevant Acts]

According to the Figure 5 the subject A claims VAT rebate in total amount of 600 EUR and at the same time the subject A has a VAT liability in total amount of 600 EUR. Therefore the subject A does not have to pay the VAT but as well the tax authority does not refund any VAT to the subject A.

## Conclusion

The aim of the article is acknowledge the public about the domestic VAT system, the VAT system within EU Member States, known as intra-community delivery and intra-community acquisition system and the third countries VAT system.

The article serves as a guide as well in the field of the procedure applying the VAT in different occasions, also explains the system of exemption of taxable supplies for exports to third countries.

The mentioned procedures are resolved according to the Value Added Tax Act valid in the Slovak Republic. The reader has the opportunity to familiarize himself with the procedures of the application of the VAT arrangements.

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# The Issue of Valuation of Internally Produced Inventory under Czech Accounting Legislation and International Financial Reporting Standards

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## Abstract

**The paper focuses on the issue of valuation of internally produced inventory under Czech accounting legislation and International Financial Reporting Standards. Accounting harmonization is a process of converging accounting systems of individual countries, which aims to ensure the comparability of financial statements. The International Accounting Standards Committee (IASC) developed the first International Accounting Standards (IAS) in 1973. In 2001, the IASC was replaced by the International Accounting Standards Board (IASB), which continues to issue new and updated standards known as International Financial Reporting Standards (IFRS). These standards are mandatory for all companies from EU member states with publicly traded securities. This requirement was accepted in the Czech Republic by the Act No. 563/1991 Sb., on Accounting, as amended, in which pursuant to Sec. 19 accounting entities that are trading companies and issuers of securities registered in a regulated securities market in the EU member states are required to apply and prepare financial statements under International Accounting Standards governed by European Community law. The membership of the Czech Republic in the European Union brings the obligation to apply the relevant EU directives also in the area of accounting. The paper analyses the changes made by the Act No. 563/1991 Sb., on Accounting, and the Decree No. 500/2002 Sb. concerning the Czech accounting legislation. It was necessary to make these changes to comply with the requirements and obligations of EU member states to transpose the Directive 2013/34/EU.**

**Key words:** *costing, legislation, international financial reporting standards, costs, accounting, internally produced inventory*

## 1. Introduction

The accounting harmonization aims to achieve a high degree of transparency and comparability of financial reporting in the EU so that the financial statements give a true and fair view of the entity's assets and performance, its financial position and provide quality and accurate information. In general, the accounting harmonization is a requirement for the general accounting rules, principles and procedures applied not only in the EU but also in other countries of the world to converge, and for the financial statements of business entities from these countries to be appropriately comprehensible and, above all, comparable for users of this information. International Financial Reporting Standards (hereafter IAS/IFRS) are the main tool of the accounting harmonization. The Czech Republic

implements requirements of selected EU directives into the national accounting, which are reflected in the adopted changes to legal norms that in addition to Act No. 563/1991 Sb., on Accounting, also include the Decree No. 500/2002 Sb. implementing the provisions of Act No. 563/1991 Sb., on Accounting, as amended, for accounting entities which are entrepreneurs that keep double-entry accounting records.

## 2. Definition of inventory under Czech accounting legislation versus International Accounting Standards

Pursuant to Section 9 of the Decree No. 500/2002 Sb., which implements some provisions of the Act No. 563/1991 Sb, On Accounting, an inventory means material, work in progress and semi-finished products, products, young and other animals and their groups and goods. The material may include, for example, raw materials, auxiliary materials or spare parts. Work in progress and semi-finished products are products which have undergone one or more stages of the production and are no longer a material but also not a finished product yet. Considering the definition, it may seem that the work in progress may only have the form of tangible production, but this term also includes unfinished activities during which no tangible products are produced. These are mainly outputs of accounting entities which provide services or if their outputs are other intangible activities such as software or projects. If accounting entities do not account for the category of work in progress and do not report it, the economic result would be distorted as well as the corresponding miscalculated tax base and the tax liability itself. Semi-finished products are separately registered products that will be finished or processed into finished products in another production process of the accounting entity. Products are understood as products of own production intended for sale or consumption within the accounting entity. The item of young and other animals and their groups includes animals and their groups, including animals for slaughter, which are not reported in fixed assets or goods. The goods include movable things and animals acquired for the purpose of sale if the accounting entity trades with these things and animals. The item also includes products of own production that have been activated and delivered to own stores, as well as the animals of own breeding which have grown, been activated and are intended for sale with the exception of animals for slaughter. The goods also include immovable property which the accounting entity, whose business is the purchase and sale of immovable property, purchases for reselling and does not use or rent, nor makes any technical improvements to it.

Generally speaking, the Czech legislation distinguishes inventories purchased and produced. The purchased inventories include material and goods. The produced inventories include internally produced inventory (formerly known as inventories of own production) which include work in progress, semi-finished products, finished goods and young and other animals and their groups.

International Financial Reporting Standards, which are issued for the purpose of harmonizing the accounting methods and financial statements used to meet the requirement of true representation of reality, address the issue of inventories and their measurement in IAS 2 – *Inventories*. IAS 2 was adopted in 1993 and came into force in 1995, when it replaced the original standard IAS 2 – Valuation and Presentation of Inventories in the Context of the Historical Cost System. This Standard does not apply to work in progress arising under construction contracts such as construction-related activities. This area is dealt with in *IFRS 15 – Revenue from Contracts with Customers*. Furthermore, the IAS 2 does not apply to inventories of producers of livestock, agricultural and forest products and mineral ores, which are addressed by *IAS 41 – Agriculture*. The issue of significant spare parts is dealt with in *IAS 16 – Property, Plant and Equipment*.

Inventories under IAS 2 are assets:

- held for sale in the ordinary course of business,
- in the process of production for such sale, or
- in the form of materials or supplies to be consumed in the production process or in the rendering of services.

In general, inventories under IAS are divided into two large groups, namely inventories purchased (goods) and inventories produced (work in progress, semi-finished products, products).

As for the number of legislative sources for defining the term inventories, the Czech Republic is in a better situation. A comprehensive definition of inventory can be found in the Decree No. 500/2002 Sb. The concept of inventory under IAS/IFRS, on the other hand, is defined by four standards, which makes it somewhat difficult. The definition of inventories under Czech accounting legislation and IAS/IFRS is generally very similar in content. A different approach can be seen in the area of significant spare parts, which Czech legislation considers to be an inventory. In order to harmonize the depreciation with IAS/IFRS, in 2010 the Czech Republic introduced in the amendment to the Decree in Section 56a a method of component depreciation of significant parts of tangible fixed assets, thereby allowing entities in the Czech Republic to use the depreciation of this type of assets voluntarily.

## 3. Inventory valuation under Czech accounting legislation versus International Accounting Standards

The issue of inventory valuation is quite complex. Under the existing Czech accounting legislation, the individual purchased components of assets, whether it is material or goods, are valued at their acquisition cost, internally produced inventory at their own cost, or the inventories may be valued at the replacement cost. For the purposes of the Act No. 563/1991 Sb., on Accounting, the acquisition cost is the price at which the asset was acquired and the related costs (such as freight or customs duties), and the replacement cost is the price for which the asset was acquired at the time when it is accounted for.

Unrealized production represents inventories produced internally in the entity, which are valued at own costs in the Czech Republic. It concerns especially the valuation at direct costs incurred in the production or other activity, or even part of indirect costs that relates to production or other activities. Own costs include either the actual amount of costs, or the amount of costs based on operational (plan) calculations if they are set during the technical preparation of production. When using the amount of costs based on the operational (plan) calculations, the deviations from actual own costs, which are part of the inventory valuation, should be made as well as their recognition in accounts according to a predetermined algorithm. The valuation of internally produced inventory is closely related to in-house management of the entity, i.e., to management accounting and calculations.

The 2016 was a breakthrough year in terms of both accounting and inventory valuation. Until 2016, pursuant to Decree No. 500/2002 Sb., which implemented certain provisions of the Act No. 563/1991 Sb., on Accounting, as amended, the Section 49 unambiguously stipulated that to value the internally produced inventory, the own costs were determined depending on the production type. For a short-term non-stop cycle, the work in progress was valued only at direct material and semi-finished or finished goods at direct material and direct labour costs. In case of small-lot and piece or custom production, apart from the direct costs, the valuation also included production overheads. If the production cycle for this production type was longer than 12 months, the valuation may have also included administrative overheads. The valuation level of internally produced inventory increased with the length of the production cycle. From 1 January 2016, the above-mentioned provisions in Decree 500/2002 Sb. were abolished and replaced by newly drafted ones, which accept the requirements of internationally recognized accounting standards, International Financial Reporting Standards (IAS/IFRS) in particular. The Section 49 of the Decree No. 500/2002 Sb., however, stipulates that the own costs of internally produced inventories are valued at the actual amount of costs or based on the method of production calculation set by the accounting entity. Own costs include direct costs and can also include a proportionate part of variable and fixed indirect costs, causally allocable to a particular production task and related to the period of activity. Costs of sale are not included in these costs. The accounting entity chooses the method of valuation with respect to the obligations set by the law, especially the principle of materiality and true and fair presentation of assets. The original and fairly accurate valuation options of internally produced inventory have "disappeared", and the entity can essentially decide which cost to include in the inventories. The respected accounting principle of a true and fair view of accounting information was so included in the accounting legislation for the first time.

Inventories under IAS 2 are generally valued at the cost of acquisition (or producing inventory), which include:

- costs of purchase,
- cost of conversion,
- other costs.

The *costs of purchase* of inventories include the purchase price, import duties and irrecoverable taxes (such as VAT for VAT non-payers), transport, handling and other costs directly attributable to the acquisition of finished goods, materials and services; trade discounts and rebates are deducted.

Under the IAS 2, internally produced inventory is valued at the actual amount of costs that is *cost of conversion,* as the standard prefers the valuation at the actual costs. The costs of conversion include direct costs and systematically allocated fixed and variable production overheads. The fixed overheads include, for example, depreciation or maintenance of buildings and equipment. Variable costs include, for example, indirect material or indirect labour that is costs that vary directly or nearly directly with the volume of production. The standard also stipulates that when allocating fixed overheads to production units, it is necessary to rely on the normal utilization of production capacity. The amount of fixed overheads allocated to a production unit does not increase due to low production or if the equipment is not being used at all. Unallocated overheads are recognized as a period cost. Even though the IAS 2 is relatively detailed in this area, it does not prescribe any specific formulas. Fixed costs are allocated based on the normal capacity of the production facility. The amount of fixed costs that is not allocated due to reduced capacity or downtime will not subsequently increase the value of inventory, but it is recognized as a period cost. In case of increased production capacity, the amount of fixed overheads per unit is reduced and the accounting entity achieves so-called economies of scale. Example 1 illustrates the effect of the production capacity level on increase or decrease in the valuation of inventories in the fixed costs.

***Example 1:***

Let's assume that the fixed costs of a given production amount to 10,000 CZK. The question is what value of the allocated fixed cost enters into the valuation of produced inventory at different levels of the production capacity.

| Production capacity level | Number of produced items | Calculation | Acceptable amount of valuation |
|---|---|---|---|
| Regular (80%) | 500 | 10000 ÷ 500 = 20 CZK/pcs | 20 CZK |
| Low (8%) | 50 | 10000 ÷ 50 = 200 CZK/pcs | 20 CZK |
| High (100%) | 625 | 10000 ÷ 625 = 16 CZK/pcs | 16 CZK |

[Source: own processing]

From the example above follows that the valuation of internally produced inventory in case of low production capacity must be at the level of normal utilization. If the fixed costs at the amount of 200 CZK were included in the value of the inventory, the assets would be overvalued, which is unacceptable. On the other hand, with a production capacity corresponding to 100% of its use, the lower amount (16 CZK) will be reflected in the inventory value, and the company will achieve economies of scale as mentioned above.

The IAS 2 clearly excludes items that are not part of the valuation of internally produced inventory, namely:

- abnormal amounts of wasted materials,
- abnormal amounts of wasted labour,
- storage costs, unless they are necessary in the production process before a further production stage,
- selling costs,
- administrative overheads that do not contribute to bringing inventories to their present location and condition.

In this case, it can be stated that Czech accounting legislation falls considerably behind the international regulation because it does not define such excluded costs anywhere. This means that if a scrap is produced, the costs associated with its production (such as material or the value of worker's labour) are reflected in the value of the internally produced inventory. This step will increase the value of current assets on the one hand and, on the other hand, unjustifiably reduce operating costs by changes in the internally produced inventory.

*Other costs* are included in the price of inventories only if they are incurred in bringing the inventories to their present location and condition. An example is the cost of designing a product for a specific customer.

Among other things, the international standard IAS 2 also addresses retail sales and in details a specific type of production – joint production. In this type of production, the feedstock is usually processed, and several products are subsequently produced from it. Most of the resulting products are referred to as main products and are subjects of business activity. But it may also produce products known as by-products, or it may even produce waste. The price of by-products is usually substantially lower than the price of the main products. In case of joint production, it is difficult to regulate the proportion in which the main products and by-products are produced because it is often a production where chemical or biochemical processes take place. For the joint production, all costs incurred in producing products are considered as indirect costs. To allocate the costs to the individual products, a special calculation for the joint production must be used. Unlike the International Financial Reporting Standards, Czech Accounting Standards do not address this type of production and the valuation methodology of such inventories. IAS 2, on the other hand, clearly defines two methods for calculating own costs in case of joint production, namely subtraction and allocation method. The subtraction method will be used by the accounting entities when both the main product and by-products are produced. The cost of the main products is obtained by subtracting the net realizable value of the by-products from the total indirect costs. The allocation method is used to allocate the cost between the products using a reasonable allocation base, which may, for example, be the price ratio of individual major products, mineral content or molecular weight.

## 3. Conclusion

Changes in accounting legislation or terminology occur in the Czech Republic every year, as well as harmonization of procedures with valid or newly introduced regulations. Changes and amendments to Czech accounting legislation respect the process of globalization. Although there is a relatively high degree compliance with the International Financial Reporting Standards in defining inventories, i.e. one of the accounting categories, it cannot be argued that the procedures for inventory valuation are defined identically. Even though this is true for purchased inventories, there is still room for a better specification of the internally produced inventory.

The biggest problem is the difficulty in choosing the right level of inventory valuation for the internally produced inventory. The question is how to define the direct and indirect costs related to the production, and whether the indirect costs will be a component of the own costs, which would then reflect in the value of reported inventory in the balance sheet. It can be stated that in terms of reporting inventory value in the balance sheet, the international standards give a fairer view of the accounting entity. The not quite clear determination of the value of the internally produced inventory in the Czech legislation somewhat contributes to the use of so-called creative accounting, when accounting entities try to measure the unrealized production under the regulations with the lowest possible valuation. For the valuation of these inventories, accounting entities tend to choose the valuation at the level of direct material (or direct costs) because the higher valuation in terms of the calculation formula results in a higher reported value which then reduces the operating costs through changes in internally produced inventory. This causes increases in the reported tax base and the related higher tax liability. It can be argued that this is only a time shift in the paid taxes as any unrealized production after time will be in the realization phase, which eventually results in paying the income tax. However, it is known that the value of money decreases over time. On the other hand, a low valuation of unrealized production,

which is lower than the total own cost of production, can cause problems in the costing calculations. Due to rather unclear and not well-formulated legislation for inventory valuation in the Czech Republic, the accounting entities may often differ in their valuation of the unrealized production.

Even the International Financial Reporting Standards for inventories have issues of their own. The biggest difficulty in applying IAS 2 is to determine in what situation the standard can be applied, given the fact that many inventory types are dealt with through other standards, which places great demands on accountants' knowledge.

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# The Human Capital of a Modern Organization and its Influence on the Company's Competitiveness

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## Abstract

**The present article provides an overview of the importance of human capital on the performance of an enterprise. It emphasizes the role of human capital in creating company's competitive advantage. Human capital, as a production factor, entails certain characteristics that make it differ qualitatively from the rest of factors and resources used by the enterprise. Human capital creates larger value as it is used over time. Development of human capital plays a key role in upgrading firm's competitiveness. Appreciating the role of human capital in company's performance can be made through assessing the effects of training on such indicators like profit, value added, increase in wage, sales and revenue etc. Human capital is better exploited through professional mobility, which allows finding the best place to implement a person's professional competencies. By increasing knowledge, abilities, skills and competencies of their personnel, employers ensure firm's adaptation on the market and contribute to a sustainable development of the economy, as a whole.**

**Key words:** *human capital, company's competitiveness, knowledge, training*

## 1. Introduction

The company is the main economic entity of society. At all stages of economic development, it is the main economic subject. Enterprises play a key role in the economic development of the country due to the fact that they solve the following problems: employment of the population, social problems, growth of national income, education of society and the development of science. Regardless of the scale and size of enterprises, the competition between them for a place in market conditions makes the market more perfect. Enterprise competitiveness is determined by the productivity of its resources. Nowadays, priority in the effective management of resources is given to human resources, and not material and financial.

The difficulty in managing these resources lies in their individual component and consists in the management of human capital, the carrier of which is man.

## 2. Development of the human capital of the modern enterprise

The concept of "labor force" was always used at singular and designated the mass of people, never the individual with personality, needs, behavior and specific vision. Today, however, management within the enterprise has diversified and regards each employee as a distinct individual with specific characteristics and aspirations.

Features of human capital:

- human capital is inseparable from the identity of its carrier;
- ownership rights to human capital can not be the subject of sale;
- education costs are associated with a decrease in free time;
- the profitability of investments in human capital is directly dependent on the upcoming period of his service;
- human capital is subject to depreciation with a minus sign - as it is used, its value increases.

An important role in the efficiency of human capital is its constant, purposeful formation and rational use. Thus, the professional training of the staff becomes an important objective for the organization, and in the conditions of market economy, the competitiveness and the increasing competition between companies, the concept of training becomes a subject of maximum actuality, because the success of the enterprise depends to a great extent on the quality staff and its involvement in solving work tasks.

Investing in the human capital of an enterprise is influenced by the policy of labor costs, which determines the approaches to recruiting and developing its personnel, training and retraining, as well as developing and implementing social programs.

It is considered that the principles of professional training include practical applicability of provided knowledge, learning motivation and the similarity between the task to be taught and the final task to be performed.

The need for continuous training and development of the employee is conditioned by a number of reasons. The growth of information, changing technologies, tough market conditions, competition - all these changes, which encourage enterprises to constantly improve the knowledge and skills of their employees, in order to stay on the "wave of success". The professionalism of the staff requires constant development.

The ability of an employer to increase human capital becomes the most important condition for the development of an enterprise, since the effective use in the production of knowledge, innovative and creative abilities becomes a decisive factor in economic growth.

The quality of company staff training can be determined through the evaluation process. The evaluation of professional training focuses on costs. The evaluation attempts to determine to what extent the training has achieved its objectives as economically and efficiently as time, money, human resources. An important point here lies in the understanding of the dependence between the amount of human capital that is valuable for an enterprise and the amount of money invested in this capital. Such investments comprise the cost of finding competent professionals, wages, benefits and other benefits, funds allocated to improve the level of special and technical knowledge and skills, as well as funds aimed at health and insurance.

## 3. Assessing human capital development at the enterprise level

The evaluation of the training activity can be done in several stages, namely: before running the program, during its running and after the training program.

Evaluation before the training or professional development program implies the following issues should be addressed: the correlation of the training needs with the aim and objectives of the training, the methods with the proposed objectives and the characteristics of the trainees group, the availability of all equipment and training facilities, the establishment and verification accepting the evaluation criteria for the training program.

The assessment of the program during its running should lead to decisions being taken to improve the training program in the future. It will be analyzed if the objectives are met, if the learners find the information obtained for their present and future activities relevant, if they are satisfied with the chosen methods and resources, if difficulties have arisen along the way, if the learning process has actually taken place.

Post-training evaluation takes into consideration at least three main performance directions:

1. Learning performance. For this purpose, the following general issues will be assessed:
   a) achievement by the trainees of the objectives of the proposed training program;
   b) effective realization of all aspects related to the design and implementation of the program according to the plan.
2. Performance at work (individual). The following general issues will be assessed:
   a) the parts of the program, which have actually been put into practice by the trainees;
   b) improving the trainee's performance in the workplace;
   c) the usefulness of the program after returning to the workplace from the point of view of the learners.

   These results will be evaluated through the employee's regular evaluation.
3. Organizational performance. There will be a series of general issues related to the achievement of the organization's objectives and the effectiveness of training under the cost-benefit ratio:
   a) increasing the efficiency of the organization (with fewer resources);
   b) increasing the efficiency of the organization (more things have been done with the same resources);
   c) increased productivity (with fewer resources);
   d) solving specific organizational problems related to actual or predicted performance.

In any case, regardless of the costs involved, it is desirable that the training and professional development activity is not seen as an expense that must be immediately recovered, but as a long-term investment in the company's human resources and the progress of the organization itself.

The efficiency of using human capital primarily depends on the mobility of labor resources - carriers of human capital. Human capital must respond quickly enough to changes in the global economy and restructure itself to those areas where its productivity is higher.

Human capital mobility is one of the most important objects of investment in human capital, along with education and healthcare. Any investment in education will be meaningless if the person who received an education does not have the opportunity to apply his/her knowledge in the workplace due to the lack of a suitable workplace or conditions for starting an independent business in a certain region. A person "chained" to his place of residence limits his own economic opportunities and becomes less competitive.

The worker today wants to be an active subject of the economy. The need for complicity is expressed in the desire to establish not only professional, but also personal communication with work colleagues, built on the principles of mutual respect and mutual support. Such workers easily "fit" into the workforce, organically accept corporate traditions, maintain the established level of corporate culture. The main motivating factor for effective work for them is the recognition of their merits by the workforce and their immediate supervisor. Therefore, with respect to this type of people, the methods of collective motivation of work, both material and moral, are very effective.

Those companies that make full use of the knowledge assets are considered to be the market leaders. The innovations, technological change and other factors affecting the growth rate and the capability to withstand strong competition have a strong impact on the total turnover or the market share in the line of business are linked with the knowledge. In order to perform on a competitive market a firm needs to constantly update its knowledge. The question that arises is the extent to which investment in employee training generates firm's performances.

Studies on results of training revealed that the benefit of enterprise-related training is high, both in terms of productivity and wage effects. Average productivity growth following training was found to be 16 %, while average wage growth was 3.3 %. According to the results of studies training generates substantial gains for employers in terms of influence on sales growth (evidence from studies on Irish firms), on value added (evidence from studies on 94 British industries over 12 years), on productivity (evidence from studies on 479 Dutch firms), on net profitability (evidence from studies on a Swedish case study of programmers), value added, return on capital employed (evidence from

studies on French firm-level data), on stock market return and sales per employee (evidence from studies on 314 US firms).

## 4. Conclusions

Conclusions about how rational and efficiently the employer uses his existing human capital can be made by assessing the dynamics of human capital and its impact on such financial and production indicators as revenue, labor productivity, production volume and quality of products (services), and enterprise costs, as well as the main indicator for any company - profit.

By developing the human capital, the employer develops the future of his enterprise. It is impossible to evaluate the competitiveness of the enterprise, without evaluating its human capital. Investments in human capital lead to an increase in the profits of an enterprise due to higher quality of human capital. The consistent formation of human capital and the increase in the efficiency of its use can significantly increase the competitiveness of the enterprise and ensure its further development.

In a post-industrial society, it is the man, with his knowledge, skills and abilities, who is the most valuable resource, much more important than the available natural resource or accumulated wealth. In the modern world, the competitiveness of a country is determined not so much by the overall level of production and consumption as by its technological, innovative content; it follows from this that human potential plays a crucial role.

In an innovative economy, a special importance is attached to the place and role of human capital as the main driving force of modern market production and its competitiveness. At the present stage of economic transformations, human capital is the main value of society, the determining factor of sustainable development and economic growth.

Creating effective mechanisms for using human capital in Moldova, as well as attracting modern technologies, which, combined with natural resources and scientific and technical potential, can not only increase the country's competitiveness, but also act as a guarantor of economic security.

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# Analysis of Implementing Digitalization and Automation in Accounting and Taxation in the Czech Republic

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## Abstract

**This paper deals with the issue of analyzing implementation of digitization and automation in accounting and taxation in the Czech Republic. In accounting and taxation, there is a strongly accelerated trend of digitization. These changes, related to the use of emerging modern technologies in this area, are beginning to have a major impact on the future changes in the accounting and tax profession. Czech accounting and tax legislation does not respond adequately to these trends. In a number of small and medium-sized companies, there is still an obvious concern about automation and robotization when processing accounting and especially tax documents, and for this reason, digitization and automation in such companies is being implemented only little by little. Larger companies cannot do without digitization today. Issues related to larger implementation of digitization in accounting and taxation in companies include inadequate technology in case of smaller accounting software, concerns about ensuring security and conclusiveness as well as setting up control mechanisms, knowledge of related processes, stagnating legislation or misunderstanding by accountants. The paper also deals with modernization and computerization of the taxation from the perspective of financial administration.**

**Key words:** *digitization, automation, accounting, taxes, legislation, process, financial administration*

## 1. Introduction

The vast majority of information is nowadays shared digitally. It is therefore not surprising that this reality also spreads into various fields, such as accounting and taxation. Despite the fact that there are more and more opportunities to use modern technologies, which make many processes faster and easier, most accountants still rely on paper-based documents. The situation in the Czech Republic is no exception. The current electronic reality and the related trend of digitization is becoming increasingly important, and it is necessary to respond to this fact. While the use of modern technology is a common concern in larger companies, at the same time, the digitization and automation of accounting in small and medium-sized companies is being implemented only gradually. However, the ability to adapt to these trends is crucial for companies that wish to increase their competitiveness. There are several obstacles that slow down the process of implementing digitalization and automation in companies. Concerns are mainly related to the processing of documents itself, which is a daily matter for the accountants. Although the digitization in this area brings many advantages, most accountants continue to prefer the printed form of documents. This is mainly due to stagnant

accounting legislation that does not correspond to today's possibilities of using emerging modern technologies. That is why accountants prefer to rely on already established practices to avoid any misunderstandings during an audit from the tax office.

## 2. Automation and digitization in accounting

One of the basic prerequisites for further development of accounting digitization in the Czech Republic is precise legislation which would adequately respond to current practice and clarify the opportunity of using electronic documents in particular. Here, however, it is worth mentioning that no legislation will ever be perfectly adequate to the pace at which modern technologies are developing. The lack of existing accounting rules also lies in the fact that they still contain the concept of manual bookkeeping based on using the books of accounts, which is not in line with software solutions used in practice. A newly prepared version of Czech accounting legislation, which considers the option of keeping books in electronic form, is already responding to this fact. Another obstacle to a larger implementation of digitization in companies is the lack of technology. The contemporary small accounting software on the Czech market is not equipped with a solution that would enable to work with an archive of digitized documents on a larger scale [Moneus, 2019]. Other issues associated with accounting digitization also include distrust of modern technology, the related concern for secure data storage and securing conclusiveness. After all, electronically stored data is much more secure than the one stored in a binder and can be lost, for example, as a result of a fire. The process of digitalization and automation in accounting can also be countered by the accountants' fear of replacing their work with artificial intelligence or by the management's fear of introducing new technologies. The reason may, however, be ignorance of the opportunities offered by modern software. Last but not least, the obstacle may also be the mere habit of plain paper and pencil and the reluctance to change such habit, both on the part of accountants themselves and their clients or officials. While the accountants and office staff do not have sufficient support in accounting regulations, clients do not want to invest more then what is necessary into their accounting which the digitization of documents would certainly require. The lack of pressure on the part of clients is so just another problem that hinders the greater implementation of digitization in accounting. It is therefore necessary to educate not only accountants but also their clients and employees of the office in this area [Businessinfo.cz, 2019].

Within the digitization and automation of accounting, there are several ways to facilitate and streamline accounting work. One possible solution lies in the accounting cloud. It is a platform that allows remote backup of documents and their easy sharing with other users. The cloud can, among other things, be used to transfer documents between accountants and their clients or from suppliers to their customers. It is also used as a clear way to publish reports for managers and clients. The concept of cloud is, however, no longer seen only as a place to store and share documents but as a complex system solution in which accountants choose the tools necessary for their work [6K Software, 2018]. Using the cloud platform is a faster and cheaper option, especially for start-ups and sole traders. Access to storage is possible through various devices from virtually anywhere. Data is stored with your cloud provider which allows access to documents even if your device is stolen or destroyed. Although the use of cloud storage brings certain benefits, accountants still prefer remote desktop connections. This is mainly due to the fact that the current offer of accounting software that allows such solution is insufficient in the Czech Republic. The problem with existing software is that its features fail to meet the needs of medium and large businesses. According to experts, newly developed accounting systems that will not work in the cloud do not have a chance to succeed [Businessinfo.cz, 2019]. However, there are some risks associated with the use of cloud storages. These are mainly related to internet connection that the cloud requires performing its function. A slow internet connection or even its failure prevents the platform from being used comfortably. There is also a risk on the part of the provider, who, on the other hand, may fail to provide the service itself. Although most providers offer a high level of security for the stored data, the risk of unauthorized access to the data and their subsequent misuse cannot be excluded. For these reasons, it is advisable to combine cloud solutions with traditional backup methods [Businessinfo.cz, 2019].

Document processing offers another area of accounting digitization and automation. Especially manual rewriting of data into the company system can often be quite ineffective, and its removal would surely be appreciated by the vast majority of accountants. There are already automated systems based on the principle of artificial intelligence, which can handle 80 to 90% of documents automatically without the need for an operator and save a lot of time. These systems are equipped with a data mining function that can upload data from both electronic and paper invoices. The extraction of content from scanned documents is a matter of fact. Especially companies that work with a large number of orders cannot do without these systems at present [Businessleaders.cz, 2018]. Figure 1 shows the process of automation in accounting.

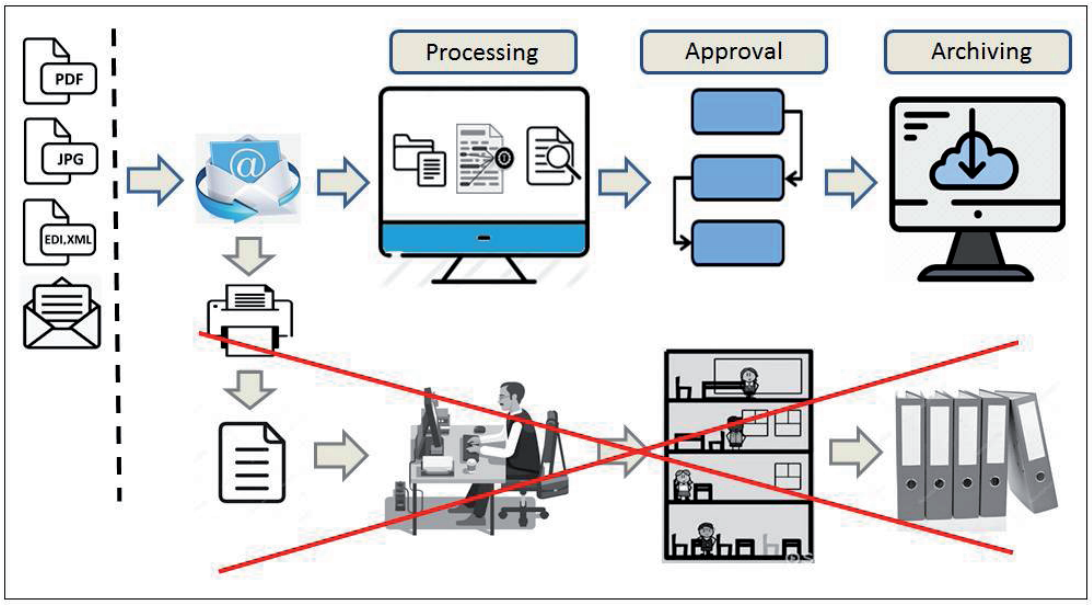


**Fig. 1.** Automation in accounting [Source: GRiT, 2019; own processing]

There are many advantages to digitization and automation in accounting as well as reasons to apply these trends in practice. One of the greatest benefits is undoubtedly the acceleration of processing documents. Electronic processing of documents reduces the risks associated with a possible loss, especially when submitting paper documents for approval. Digitized documents are also more advantageous in terms of safety as they prevent unauthorized access and viewing of the documents or even their theft.

## 3. Automation and digitization in taxation

The digitization and automation in the area of taxation is certainly the future of tax administration, not only in the Czech Republic. It is very important to respond to this direction with appropriate legislation. The amendment to Act No. 280/2009 Sb., the Tax Code, as amended, with anticipated effectiveness in 2020 should bring extensive modernization and electronization of taxes. Among other things, this amendment will include the legislative incorporation of the on-line tax office or the project entitled "MoJedaně" (hereafter My Taxes), i.e. "MOderní a JEdnoduché daně" (modern and simple taxes). This project follows from and also represents an expanding level of the tax information box, which currently plays the role of a digitization tool in the taxation, and should facilitate and accelerate communication between a tax entity and the tax office without the need for visiting the tax office in person. The My Taxes portal should provide much more functions than the tax information box; it is supposed to be more graphically friendly, more clearly arranged and in the form of internet banking [eGOV, 2019]. The so-called e-identity will be used for logging into the system which serves as a means of logging into the on-line services provided by the state and its authorities. Nevertheless, there will be a number of specific login options. For example, it will be possible to apply for identity cards with chips which are referred to as "e-občanky" (e-ID card); these

have been issued since 2018. It will also be possible to log in using login information from the data box, which is used for receiving and sending electronic documents, or using login information provided directly by the tax office. Furthermore, another option is being prepared: an authorization through the banking identity called BankID, i.e. verification within electronic banking, which is used by more than 5,000,000 citizens in the Czech Republic. The launch of such revolutionary tool for digital validation in the Czech Republic, the SONIA project, is planned for 2020 and will be a simple means of proving the user's identity when using state digital services. A close cooperation between the state, banks and the modification of existing legislation are essential for the implementation of this tool [MF České republiky, 2019].

The purpose of the My Tax portal should be simpler and easier handling of tax obligations. The portal will contain all electronic forms operated by the financial administration, including an electronic guide for their completion. Forms that can currently be sent electronically (mandatory for owners of tax data boxes) include, for example, value added tax returns, VAT control statement, personal and corporate income tax returns; these are sent through the application for electronic submissions to Financial Administration (known as EPO). The portal will no only allow pre-filing of tax returns with all information available to the tax office about the person and extend the option of their submission via the internet, but it will also provide automatic data calculation and check of all the information provided. The portal will provide information on the history of the entity, for example, on past tax returns, allowing to create a personal tax calendar; it will include the option to be notified of future tax obligations using the user's email address, or if the taxpayer is subject to an overpayment, a request for a payment refund will be automatically sent to the tax office. All current web sites and applications of financial administration will be merged and linked to the Citizen Portal [MF České republiky, 2019]. The purpose of the My Tax portal, among other things, will be to increase the incentive to use electronic communication between tax entities and the tax office which currently uses only a small number of tax entities through a tax information box. In 2018, more than 22% of all individuals used electronic income tax returns, which represents a 4% increase compared to the previous year [Businessinfo, 2019]. If a tax entity uses the option to file the income tax return electronically, the entity will be allowed to refund the tax overpayment earlier – within 15 days instead of the current 30 days, or to extend the submission deadline by one month which will not apply to entities that use the services of tax advisers to file a tax return. Alternatively, a QR code payment option will be available which would eliminate the need to manually enter payment information and so reducing the risk of potential errors [eGOV, 2019].

No even tax or accounting documents have escaped the digitization. Paper-based documents are gradually on a decline, and only electronic documents are expected to be used in future years. The legal effectiveness of electronic documents can be found, for example, in the Act No. 89/2012 Sb., The Civil Code, but the equality of digital and paper documents is also based on the Regulation of the European Parliament and of the Council (EU) No. 910/2014 on Electronic Identification and Trust Services for Electronic Transactions in the Internal Market which is effective from 2016. The electronic form of accounting documents is based on the Act No. 563/1991 Sb., On Accounting. The conclusiveness of such documents is ensured by an electronic signature which represents digital data that replaces the handwritten signature. It is possible to use a guaranteed electronic signature or primarily its higher form, the recognized electronic signature. This electronic signature is based on a qualified certificate and is provided, for example, by the First Certification Authority (called I. CA). The electronic form of tax documents is based on the Act No. 235/2004 Sb., On Value Added Tax, as amended, and both parties to the transaction must agree to this form of tax documents [Daně, účetnictví, právo, práce a mzdy pro profesionály, 2018].

As for an electronic tax document, it is obligatory to ensure legibility, integrity and credibility by the end of the period for its archiving, for example, by means of the above-mentioned electronic signature, electronic seal or electronic exchange of information. Electronic signatures can also be used to secure electronic documents when the electronic signature is used to uniquely identify the signing individual, an electronic seal to identify a legal entity, or timestamps to ensure that the data on the electronic document existed at a particular point in time, and to identify any changes to the data. A number of practical tools can be used to ensure the long-term credibility of documents, such as Long

Term Validator, which allows you to add a time stamp after it expires. Electronic documents are mainly sent using electronic communication tools, for example, via e-mail or data box. Electronic archiving of documents is carried out by appropriate electronic means for processing and storing data, mostly in the PDF format, for example, using the Print2PDF tool.

Along with archiving documents, it is also necessary to keep other data which guarantee credibility and integrity. These documents can also be converted into paper form and vice versa [Daně, účetnictví, právo, práce a mzdy pro profesionály, 2018]. It is possible to use the company's local computer network for storing and archiving electronic documents, but a more modern solution for storing and archiving documents is the cloud environment which is storing data on the internet. Documents or other files that are stored in the cloud can then be accessed from anywhere where an internet connection is available; the chances of improper handling of documents by employees or administrative costs are then reduced. The risk and disadvantages of such data storage, as well as digitization in general, is apart from possible internet connection failures the threat of security or misuse and data theft; this is why this type of archiving places high demands on security [Hospodářské noviny, 2018]. Since 2013, the Czech Republic has also been running an internet application for the value added tax (VAT) register which is used for on-line searching of VAT payers through their tax identification numbers. The register provides basic information about tax entities, including details of their VAT registration, information if they are an unreliable VAT payer as well as their registered bank accounts. The VAT Information Exchange System (VIES), which is available on the European Commission website, is used to verify the VAT number for VAT payers within the European Union. Compared to the Czech VAT register, the VIES contains a smaller amount of information [Kurzy, 2019].

## 4. Digitization in state administration

The digitization of state administration, or e-government, which represents electronic communication with state authorities, lags considerably in the Czech Republic compared to the EU member states, both in terms of quantity of services provided and the number of users using digitized services. There are various causes of insufficient digitization. They include, for example, implementing other policy objectives or priorities, insufficient coverage of the territory with internet connection, the population's unwillingness to use electronic portals, insufficient promotion of digitization, inappropriate legislation or distrust of data security [Vláda České republiky, 2019]. Czech e-government is based on several pillars which were established in accordance with the Strategy of Effective Public Administration and Friendly Public Services (called Smart Administration) that was, among other things, financed from the European Union. Contact points of the Czech POINT (abbreviation for "Český Podací Ověřovací a Informační Národní Terminál") are first of these pillars which provides some state administration services, such as certified copies of entries from various registers. Data boxes, which are used as an electronic communication tool with state authorities, are another pillar. The last pillar is a system of basic registers consisting of a register of persons, inhabitants, territorial identification, addresses and real estates and a register of rights and obligations [Ministerstvo vnitra České republiky, 2019].

The Czech Republic has been trying to improve the state of Czech e-government, especially in recent years. In the area of digitization of state administration, it is worth mentioning, for example, the project of "e-občanka" (e-ID card project) which serves as a means of verifying on-line communication between citizens and authorities through internet connection. This identity card with a chip has been issued since 2018 and is currently owned by more than 1,000,000 citizens, but only one-third of the population activated the electronic chip which is crucial for on-line communication. Login via e-ID cards takes place through the national point for identification and authentication which was established based on the effectiveness of the Act No. 250/2017 Sb., on Electronic Identification. With the e-ID card, it is possible to create a qualified electronic signature or to log into several web applications of the public administration (E-identity).

The Citizen Portal is currently considered a breakthrough in the area of digitization of the state administration and serves as a personal profile for users of the public administration portal where among other things events or digital services operated by the public administration are published. Under the auspices of the Ministry of the Interior, this portal has been in operation since 2018 and provides some digital services of the public administration. Login can be done with login information for the data box, then by the above-mentioned e-ID card, but with an activated electronic chip, or by using one's own name and unique code obtained after registration on the "Portál národního bodu" (e-identity portal), or there are plans for logging via internet banking. This is the already mentioned project of banking identity which aims, among other things, to deepen the digitization of public administration and also facilitate the access to electronic services of the state and to increase the interest in its use which is currently very low. The Citizen Portal now has only 22,000 citizens registered which means that people still prefer written or personal form of communication when dealing with authorities. Currently, the portal provides around a hundred services, some of which are included in Figure 2; more services will be added each year, but compared to countries such as Norway, Finland or Estonia, which the Czech Republic considers as a model in the area of digitization, this number is negligible. Through the Citizen Portal, it is possible to find out the status of the driver's point account, specific information on the offences committed or basic information on driving licenses, such as the expiry date. There is also opportunity to use the cadastre services and find out detailed information about the real estates of the registered user. The trade register services are also provided through the portal. Using the portal, a trade license can be established or revoked electronically, or it provides basic user information available in the trade register. Other services also include the option of being notified in case of expiration or change of documents, or users can use their own storage for electronic documents. New services are planned to be set up through the Citizen Portal in the coming years such as the provision of a building permit [Money, 2019].

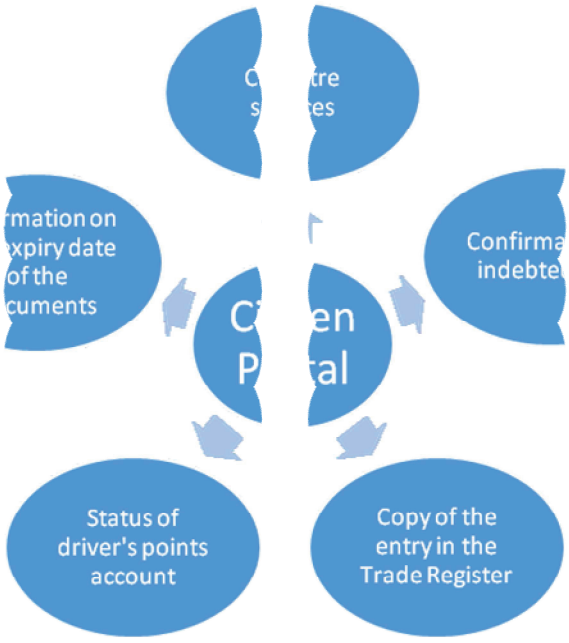


**Fig. 2.** Illustrative list of services provided by the Citizen Portal
[Source: Peníze, 2019; own processing]

To improve the state of Czech e-government, the ICT Union created the "Iniciativa 2020" (Initiative 202020) in 2016 which aims to move the Czech Republic among the first 20 states in the development of e-government. In cooperation with this initiative, an Act on the Right to Digital Service was proposed in 2018 which could be adopted by mid-2020. The essence of this Act is to make the Czech state administration fully digital. Its foundation lies in compiling a catalogue of on-line services which can be used by citizens and the state, and subsequently make these services available digitally, all within five years of the adoption of this legislation (2020, 2019). In 2018, a coordinated and comprehensive digitalization program of the Czech Republic 2018+ was approved

which consists of three conceptions and, among other things, deals with the development of e-government in the Czech Republic. Pillars of this project include the concept of the Czech Republic in digital Europe which deals with the digital single market.

Another concept is a digital economy and society which is the responsibility of the Ministry of Industry and Trade and deals with the impact of digitization and its efforts to ensure the competitiveness of the Czech Republic in this area. The last is the information concept of the Czech Republic which deals with the digitization of state administration. The concept aims, for example, to ensure digitally appropriate legislation, for instance by analyzing the effectiveness of current e-government laws, to ensure user-friendly and secure digital public administration services, for instance by publishing all digital services of public administration in one place, or to ensure the development of an appropriate environment for the proper functioning of digital technologies [Ministerstvo průmyslu a obchodu, 2019]. The electronic system of eCollection (eSbírka) and eLegislation (eLegislativa), which are expected to start operating in 2022, can also be seen as a further step in digitization of the state administration. The eCollection system will contain all current and past versions of all legal regulations in electronic form, including various other documents related to the legal regulations, thus ensuring greater clarity, availability and easier orientation in the Czech legislation. The e-Legislation system will be used to create legislation in order to simplify, speed up and improve the quality of the entire legislative process while also monitoring the progress of the legislative change process [Ekonomický deník, 2019]. Another effort to digitize the Czech Republic is also the strategy of The Country for the Future one pillar of which is digitalization. In the area of digitization, this strategy aims to link public information tools as well as to streamline the implementation of digitization itself [Vláda České republiky, 2019].

## Conclusion

This paper dealt with the current issue of analyzing implementation of digitization and automation in accounting and taxation in the Czech Republic. Document digitization is one of the important aspects to ensure the efficient operation of any modern business company, corporation or other business or non-business entity, including state administration. Appropriate and efficient digitization of accounting and tax documents ensures clearer arrangement and faster and easier processing of invoices, agreements, contracts and other documents, and it certainly has the effect of reducing company costs and saving time. Converting documents into digital form is nowadays an easy activity mainly thanks to various programs with optimal solution and automatic conversion of documents into electronic form using modern technologies. A number of specialized companies offer these services, including customer service, equipment installation and consultancy. Medium-sized and larger companies can hardly do without digitization. The digitization of accounting and tax documents for smaller companies, however, is a relatively increasing problem which arises from the fear of data loss and protection, data misuse or failure to comply with applicable accounting and tax legislation. The distrust of digitization is also a reflection in the communication with state administration. According to a survey commissioned by the Chamber of Certified Accountants (KCÚ ČR), it is clear that when submitting electronic documents to public authorities 47% of accountants use a data box, 12% public administration portals and 41% combination of the above.

In some cases, digitization and automation can solve the issue of labour shortage. Last but not least, these trends are one of the sources of competitive advantage for companies. Although the accounting profession might seem insignificant with the implementation of digitization and automation, the opposite is true. By eliminating routine procedures, accountants will strengthen their role of accountants and create space for further opportunities. At the same time, their workload in the near future will require the ability to adapt to the increasing requirements of information technology. The accountants will have to know the options offered by each software and be able to use them in the first place. Digital literacy is thus a prerequisite for qualified accountants, and their fear of losing work is groundless if they are able to adapt to new changes. The question is whether due to the opportunities of modern technology the work of accountants is getting easier or more difficult.

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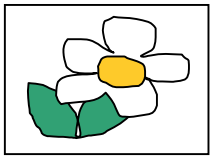

**Fig. 1.** The 9 to 11 p text should be upon the tables or under the pictures and graphs, separated with one 9 p space line. Or the text may be in the left or right side of a table, graph or picture, like this text. If the article is not in English, the text in the other worldwide language must be situated at the second place, after English version. The picture numbering and description are voluntary, but must be uniform in the entire article.

11 p space (2 x)

11 p space

## References *or* References and notes *(full form with article names, alphabetical order)* 12 p bold

11 p space etc.

[1] Author B.A.von, Writer J.K.L.: **Article name**. *Our J Transactions, 1999, **127**, 122-136*

[2] Van Loon J.C.: *Selected methods of trace metals analysis*. J. Wiley, New York, 1991

[3] *** note:** *The citations and notes are numbered in the same fashion and may be mutually mixed. Also you can add all notes collected at the end of the citation list, continuing it's numbering.*