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FINANCIAL INFORMATION AND MANAGEMENT DECISIONS: IMPACT OF ACCOUNTING POLICY ON FINANCIAL INDICATORS OF THE FIRM

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Abstract. To be useful for decision-making accounting information needs to be of high quality. This article examines how tax accounting rules may impact the accuracy and reliability of the information contained in financial statements. The simulation model reveals that significant distortions occur in accounting information due to the choice of depreciation period and methods. Using as benchmark ratios calculated applying accounting policy recommended in Business Accounting Standards a significant divergence between ratios has been found. This finding implies that ratios calculated using accounting rules allowable for Corporate Income Tax calculation can provide misleading information and lead to unsound financial management decisions.

Keywords: accounting, financial indicators, depreciation, long-term assets, management decisions, financial statements.

JEL Classification: M41, M49, L20.

Introduction

Financial statement information plays an important part in many types of decisions made by firms and their stakeholders. However, the success of actions taken based on these decisions depends, among other things, on the quality of accounting information. To be useful for decision making the accounting information needs to be accurate, truthful, and reliable. On the one hand, it needs to adhere to universally accepted standards to produce a true and fair view of a firm's performance. On the other hand, real-life situations require some flexibility in choosing the accounting policy that maximizes benefits to the firm. One of the areas that need to be reconciled in the process is the different treatment of long-term assets in tax accounting and in financial statements.

The amount of annual depreciation of long-term assets can be determined by applying different depreciation periods as well as by using different depreciation methods. In Business Accounting Standards (BAS), the depreciation period is defined as total productive years for which the asset is expected to benefit the company or "useful life" (Business Accounting Standard no.12. Long-term tangible assets, 2015). The useful life for the same type of asset may vary from several years to tens of years. Companies themselves choose which depreciation period and method to apply. It could be a straight-line or an accelerated depreciation method. If a straight-line depreciation method is chosen the basis for depreciation can be the asset's useful life expressed in years, or the number of goods produced using the asset. There are several methods of accelerated depreciation but essentially it allows to write off assets faster in earlier years than the straight-line depreciation method and to write off a smaller amount in the later years. Though in practice the same assets wear-off in about the same period (except such assets that wear-off depending upon the intensity of their use such as vehicles or machinery) in financial statements the results will differ depending upon the chosen depreciation method. Numbers derived from those statements are the primary means of communicating financial information both within the firm and outside the firm. Moreover, the information from the financial statements will be used for calculating ratios that in turn are being used to determine the company's value in the market as well as to make inside management decisions.

Results of the previous research made on Lithuanian companies provide evidence that the most significant distortions of information presented in financial statements are related to tangible assets, specifically the application

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of accelerated depreciation methods and failure to revalue assets so that they reflect true asset value (Cernius et al. 2016). As a result, the value of long-term assets recorded in the balance sheet is understated, thus making the company's financial situation look worse than it is. Often the depreciation method is chosen not to reflect the useful life of long-term assets but the shortest period allowable for Corporate Income Tax (CIT) computation. As a result, costs shown during the initial use of an asset are magnified, thus reducing profit recorded in Income and Loss Statement.

The impact of faster depreciation is also confirmed by the evidence that companies use significant quantities of fully depreciated long-term assets for income-producing activities. (ibid.) As a result, the balance value of such assets is zero. The depreciation costs are also equal to zero. That improves operating results recorded in the Income and Loss Statement (the net profit increases) and all indicators related to the effective use of long-term assets are unjustifiably enhanced.

The question arises to what extent such distortions are significant and can have an impact on financial management decisions of the firm. If it is found that distortions are significant and lead to wrong decisions, it becomes important to find the most effective solution to this problem. For large companies, the issue is less crucial because there exists a mechanism on how to minimize the impact of rules applied to calculate the Corporate Income Tax (CIT) on financial statements. However, even in the context of large companies, there's evidence that such distortions exist. Prior research revealed that companies were using considerable capacities of fully depreciated long-term assets (Cernius et al. 2016).

The objective of the research is to determine to what extent specific accounting policy factors affect analytical indicators that form the basis for making financial management decisions including investment and acquisition decisions. The simulation model reveals that significant distortions occur in accounting information due to the choice of depreciation period and depreciation methods. Using as a benchmark the ratios calculated applying the accounting policy recommended in Business Accounting Standards the significant divergence between ratios has been found. This finding implies that ratios calculated using accounting policies allowable for CIT calculation can provide misleading information to various stakeholders of the firm. Such accounting information falls short of being useful information for decision- making as defined in International Financial Reporting Standards (IASplus 2010).

The paper is organized in the following way. In section one the literature review of the role of accounting information in decision-making and the evidence of the impact of the quality of accounting information on various decisions is presented. It describes the fundamental qualitative characteristics of useful accounting information. Section two and its subsections are devoted to the description of the research method, depiction, and discussion of the modeling results, and significance tests. Finally, the last section concludes.

1. Literature review

Numerous authors agree that financial statement information plays an important part in many types of management decisions (Hall 2010, Hartmann 2000, Jørgensen and Messner 2010, March 1987, Otley and Fakiolas 2000, Preston 1986, Socea 2012). Apart from monitoring, supervising and overseeing, managers are directly involved in strategic decision making. Decisions must be made about the future course of a company, its capital investments, the introduction of new products, capital structure, acquisitions or mergers. Strategic decisions are taken as opportunities occur, or conditions evolve. In these decisions, financial accounting plays a pivotal role (Socea 2012). It informs managers about the financial position, the performance, trends, and risks to the company.

According to Hall (2010), the most unique and helpful feature of accounting information stems from its aggregation properties and its role as a common, financial language to facilitate communication among managers (Hall 2010). It provides a context for any decision requiring deliberation. Accounting information can also serve as a signal to initiate discussions about whether an issue requires further investigation.

Anderson (2008) maintains that the economic analysis of financial accounting information is a crucial tool to back and adopt decisions (Anderson 2008). Regardless at which level of the managerial hierarchy it occurs, economic decision-making process involves a comprehensive analysis and insights into the future direction of the company. Accounting can help managers to gain knowledge about the organization in several ways (Hall 2010). It makes apparent those events that are not discernible while taking care of daily activities. It provides a quantitative overview of the company's performance. Accounting information can expose issues that remain unnoticed during routine activities including situations involving the conflict of interests (Ishaque, 2019). Therefore, important aspects of the company get revealed through accounting information. Indeed, it allows the manager to establish the substance and significance of all the operations. Accounting information can help managers to gain comprehensive knowledge to get ready for future decisions and actions (Hall 2010, March 1987, Preston 1986, Jørgensen and Messner 2010).

An indisputable advantage of accounting relative to other sources and types of information is its ability to provide an overview. In accounting, "making the past deterministic is the function of selected financial numbers" (Wells 1979, Socea 2012, p. 51). Hence, accounting is concerned with the provision of relevant financial information to make informed decisions on the allocation and management of resources and evaluate performances.

International Financial Reporting Standards (IFRS) in the Conceptual Framework for Financial Reporting 2010 (the IFRS Framework) define and explain concepts of qualitative characteristics that determine the usefulness of accounting information (IASplus 2010). Financial information is useful when it is relevant and represents truthfully what it claims to represent. Relevance and faithful representation are the fundamental qualitative characteristics of useful financial information (IASplus 2010). Relevance is understood as financial information which can make a difference in the decisions of its users. To make a difference in decisions financial information must have predictive value, confirmatory value, or both. (ibid.) The critics point out that though the declared objective of IASB is to develop high-quality standards based on clearly articulated principles, IFRS are becoming more complex and harder to follow because of the frequent revisions and amendments (Morais, 2019).

To be useful, financial information must not only be relevant, but it must also represent accurately the facts and trends it claims to represent (Paseková et al. 2019). This fundamental characteristic seeks to maximize the underlying characteristics of completeness, neutrality, and freedom from error. These characteristics make financial information reliable. In addition to fundamental qualitative characteristics, four enhancing qualitative characteristics are identified: comparability, verifiability, timeliness, and understandability. Comparability means the capacity of information to be compared over time or in space, and relative to other benchmarks. If financial informational does not meet those requirements it may be potentially misleading (The IFRS framework approved by the IASB) (IASplus 2010, IFRS 2018).

There exists voluminous empirical evidence that the quality of accounting information has an impact on managerial decision-making. Prior studies suggest that high-quality financial reporting may increase investment efficiency (Healy and Palepu 2001, Biddle et al. 2009, Biddle and Gilles 2006). They maintain that high-quality financial reporting reduces information asymmetry between firms and external suppliers of capital and therefore improve investment efficiency. High-quality financial reporting may enable firms pressured for capital to attract funding by making their projects more visible to investors and reduce adverse selection in the issuance of securities (Yoo et al. 2013). High-quality financial reporting facilitates contracting, prevents inefficient investment, and increases investors' ability to monitor managerial investment decisions (Yoo et al. 2013, Chang 2017, Kamela-Sowińska 2015).

Using firm-level data from the World Bank, Chen et al. (2011) find empirical evidence that financial reporting quality positively affects investment efficiency not only in the US context but also in other countries. They further find that the relationship between the quality of financial reporting and investment efficiency is positive in bank financing and negative in incentives to minimize income for tax purposes (Chen et al. 2011).

Acquisitions are among the largest and most easily visible forms of corporate investment (Yoo et al. 2013). Investments in this form tend to intensify principle-agent problem inherent between managers and shareholders in large public companies (Jensen and Meckling 1976). The evidence suggests that high-quality accounting information allows stockholders to control firm managers that are motivated to exploit misevaluation to increase their own power and prestige. The economic benefits of high-quality financial reporting include preserving stockholder wealth (Kim 2013). In addition, prior studies find evidence that high-quality financial reporting leads to better bidding decisions in acquisitions because useful accounting information reduces uncertainty in the value of the target firm and enables to reach a more accurate valuation (McNichols and Stubben 2012, Yoo et al. 2013).

The literature linking firms' accounting quality to financial decisions has been extended in several directions, including the impact the quality of accounting information has on decisions related to capital structure, dividends policy, value of earnings and common equity, and sources of financing (Duru et al. 2018). Research based on U.S. data finds that firms with better information quality raise more equity whereas firms with poorer information quality prefer to borrow when they seek external financing. These results are confirmed by a cross-country study (Chen et al. 2011). These findings are in line with earlier evidence that poorer accounting quality borrowers give preference to private debt, i.e., bank loans (Bharath et al. 2008). In addition, the findings suggest that the quality of information is more critical in making a firm's capital structure decision when investor's demand for information is greater (Chen et al. 2016). Financial reporting quality plays a prominent role in diminishing the conflict between firms' decisions to invest or pay out dividends. High-quality financial reporting significantly reduces the negative effect of dividends on investments, especially on R&D investments. High-quality reporting lowers the probability that firms eschew valuable investment projects in order to pay out dividends (Ramalingegowda et al. 2013). The research on the relationship between firms' accounting quality and the usage of trade credit as a source of financing shows that because of their advantages in overcoming information conflicts, suppliers are more likely to provide trade credit to customers with low accounting quality (Chen et al. 2017). n today's economy value is often created by intangible (intellectual) capital.

Important stakeholders in the quality of accounting information are credit providers. Numerous authors agree that financial statement information plays a major role in the credit evaluation phase of commercial loan decisions (Libby 1979, Duru et al. 2018), Danos et al. 1989). Financial statements contain valuable information related to the creditworthiness of the borrower. In general, they show the nature of assets available to serve as collateral and the sources and amounts of cash flows from previous years operations to judge if the customer is capable of

servicing the debt. The findings of prior research suggest that loan officers reach a high level of confidence early in the lending process based on summarized and conservative accounting information (Penalva and Wagenhofer 2019, Danos et al. 1989). Other authors find interactive effects between accounting information and other – non-financial information – the lenders use to evaluate the creditworthiness of commercial borrowers (Beaulieu 1994, Berry et al. 1993).

In sum, the literature review reveals that accounting information is pivotal in making various types of managerial decisions. The quality of information matters. Only high-quality accounting information is useful for decision-makers. Faithful representation is one of the fundamental qualitative characteristics of useful financial information. The choice of specific accounting policy methods may render the information inaccurate and useless for decision – making. This paper attempts to demonstrate such instances.

2. Empirical analysis

2.1. Research methods

The research method is a simulation based on a hypothetical company. The choice of the method is predetermined by the fact that selected indicators in an operating company are affected by a multitude of factors in addition to the factors of interest in this research. Therefore, only by keeping other factors constant, it becomes possible to determine how numerical values of indicators are affected by assets depreciation policy applied by the company. The assumption is made that the analytical model is still a reasonable representation of the real-world situation. In addition, to find evidence if indicators calculated using different accounting policies are statistically different from each other and therefore sufficiently influence accounting information a *t*-Test is performed. The tests are performed in order to provide greater weight to the findings of the first part of the research and create the basis for robust conclusions.

Hypothesis: The values of financial indicators vary significantly depending upon the depreciation policy used by the company, ceteris paribus.

For the purpose of modeling those indicators are chosen:

- Gross profitability
- Net profitability
- Return on Equity (ROE)
- Return on Assets (ROA)

Factors that affect the indicators are limited to:

- Depreciation period
- Depreciation method

Input for the simulation model:

1. The value of the long-term asset is equal to 1 M EURO; the asset's useful life is 25 years. Salvage value is 0. When calculating the CIT the allowable depreciation period is 8 years, if the method of accelerated depreciation or, specifically, a double-declining balance method is applied.
2. The annual income is equal to 500 000 EURO and is constant during the whole period.
3. Annual costs excluding depreciation are equal to 300 000 EURO.
4. Inventory is equal to 250 000 EURO.
5. Long-term debt is equal to 200 000 EURO.
6. Accounts Payable (debt to suppliers) are equal to 250 000 EURO.
7. Dividends are not paid.

As shown in Table 1 three simulation scenarios are chosen based on different depreciation periods and methods that are most frequently used in practice by small- and- medium-sized enterprises. The depreciation period of 8 years is chosen based on the provisions of Law on CIT (The Republic of Lithuania Law on Corporate Income Tax 2001).

Table 1. Versions of the variable used in calculations (source: calculated by the authors)

Version	Depreciation period, in years	Depreciation method
I	8	Accelerated (double-declining-balance) method
II	8	Straight-line
III	25	Straight-line

2.2. Results and discussion

After the simulation is completed it becomes evident that a sizable variation exists between financial indicators (ratios) depending upon the version chosen for calculations.

As shown in Table 2 the values of indicators vary depending upon the accounting policy used. If the purpose of financial statements is to provide a true and fair view of the firm, Version III is correct when the useful life (25 years) of an asset is chosen as a depreciation period, and a straight-line depreciation method is applied. By applying this accounting policy, the impact of rules for calculating CIT on the final results is eliminated. Therefore, it is used as a benchmark for making comparisons with the results obtained using other methods. Methods most frequently met in practice – the version I and version II – significantly distort information in financial statements. In the version I, the shorter useful life as well as accelerated depreciation method is applied. Usage of such methods is justifiable for calculating CIT. However, such methods fail to provide accurate information in financial statements. In version II a shorter depreciation period and the straight-line depreciation method are used to calculate indicators.

When rules for calculating CIT migrate into financial accounting significant distortions of information occur. This statement is supported by calculating the difference between Version III as a benchmark and other versions. As shown in Table 2 in Year 1 using Version I profitability indicators are reduced by more than 130% compared to

Table 2. The values of indicators depending upon the chosen depreciation period and method (source: calculated by authors)

	Versions used in practice			Benchmark	Difference in percent		
Year 1	I	II	III	III	I	II	III
Gross Profitability	–0.10	0.15	0.32	0.32	–131.25	–53.13	0.00
Net Profitability	–0.10	0.13	0.27	0.27	–136.76	–53.13	0.00
Return on Equity (ROE)	–0.07	0.07	0.15	0.15	–145.88	–49.20	0.00
Return on Assets (ROA)	–0.07	0.07	0.14	0.14	–147.06	–48.57	0.00
Year 2	I	II	III		I	II	III
Gross Profitability	0.03	0.15	0.32	0.32	–92.19	–53.13	0.00
Net Profitability	0.02	0.13	0.27	0.27	–92.19	–53.13	0.00
Return on Equity (ROE)	0.01	0.07	0.13	0.13	–88.99	–45.82	0.00
Return on Assets (ROA)	0.02	0.09	0.15	0.15	–87.22	–42.50	0.00
Year 3	I	II	III		I	II	III
Gross Profitability	0.12	0.15	0.32	0.32	–62.89	–53.13	0.00
Net Profitability	0.10	0.13	0.27	0.27	–62.89	–53.13	0.00
Return on Equity (ROE)	0.06	0.06	0.11	0.11	–44.73	–42.88	0.00
Return on Assets (ROA)	0.12	0.10	0.15	0.15	–22.59	–34.00	0.00
<…>							
Year 8	I	II	III		I	II	III
Gross Profitability	0.13	0.15	0.32	0.32	–58.43	–53.13	0.00
Net Profitability	0.11	0.13	0.27	0.27	–58.43	–53.13	0.00
Return on Equity (ROE)	0.04	0.05	0.07	0.07	–39.74	–32.44	0.00
Return on Assets (ROA)	–	–	0.20	0.20	–	–	0.00
Year 9	I	II	III		I	II	III
Gross Profitability	0.40	0.40	0.32	0.32	25.00	25.00	0.00
Net Profitability	0.34	0.34	0.27	0.27	25.00	25.00	0.00
Return on Equity (ROE)	0.12	0.11	0.07	0.07	71.82	70.95	0.00
Return on Assets (ROA)	–	–	0.21	0.21	–	–	0.00

the benchmark. Indicators of return on equity and return on assets are lower by over 140% compared to the benchmark. In the case of Version II information is less misleading; the profitability indicators are reduced by 53% while ratios of returns on equity and assets are smaller by 40%.

In later years dissimilarities of Version, I and Version II compared to Version III become less pronounced but remain sizable. Starting with Year 9 the trend in indicators related to the depreciation of long-term assets are reversed. As indicated in Table 2 starting with Year 9 profitability indicators are boosted by 25% compared to the benchmark while return on assets is augmented by 70%. It should be noted that it becomes impossible to calculate the return on assets at the end of Year 8 as the book value of long-term assets is equal to zero. This causes significant alteration in the numerical values of selected indicators as illustrated in graphs below. Besides, the variation in indicators during the research period strongly depends upon the version being modelled.

In Version, I the reduction of profitability in Year 8 is associated with the application of the accelerated depreciation method when the remaining acquisition cost of the long-term asset is written-off (see Figure 1). At the same

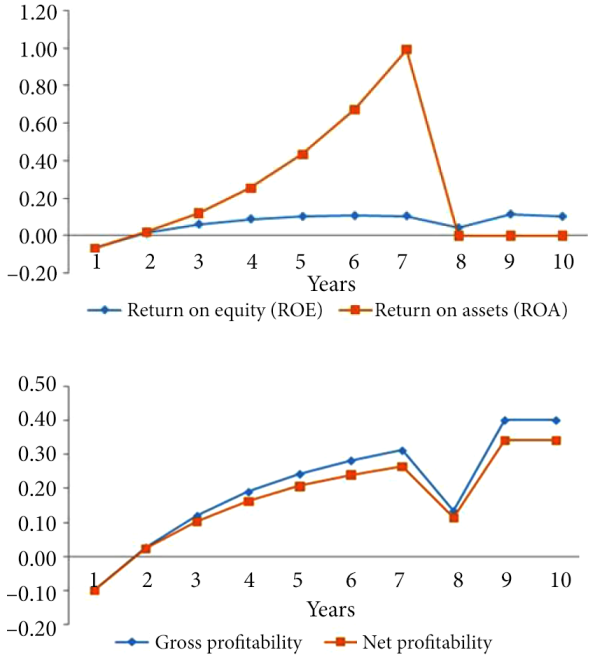

Figure 1. Indicators using eight years depreciation period and accelerated method (Version I)

time, we notice an abrupt change in the indicator on return on assets. As mentioned above the book value of the assets becomes equal to zero.

In the case of Version II, the prominent increase in profitability ratios is evident in Year 9 which is associated with the reduction of depreciation costs (see Figure 2). The asset is fully depreciated though it is still used in the firm's operations (its useful life is equal to 25 years). At the same time, we observe an instant fall in the return on assets ratio, analogous to Version I.

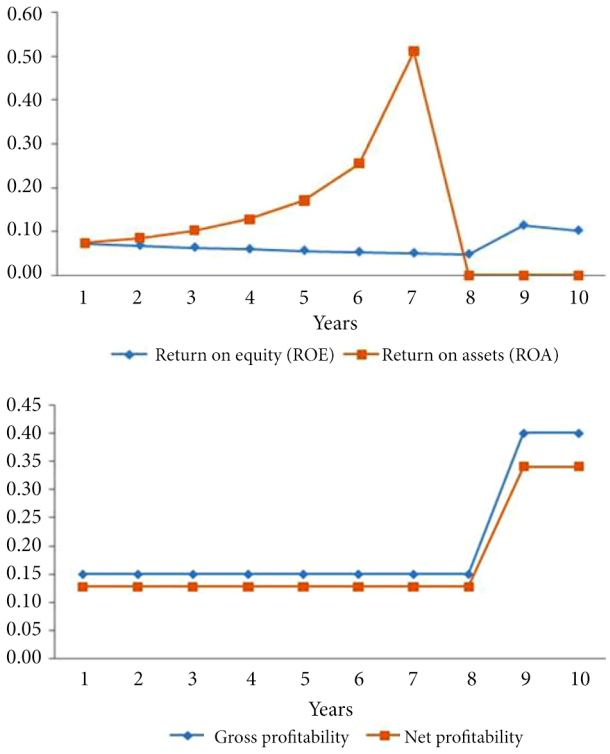

Figure 2. Indicators using eight years depreciation period and straight-line method (Version II)

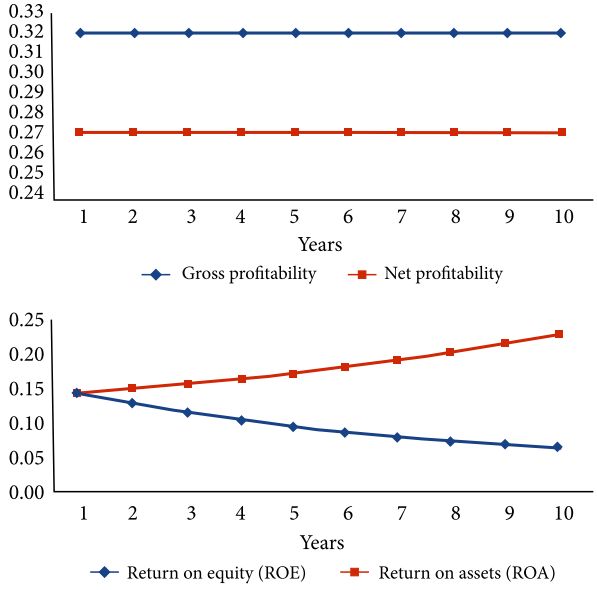

Figure 3. Indicators using 25 years depreciation period and straight-line method (Version III)

In the case of Version III, it is evident that numerical values of profitability ratios remain stable during the modelled period while the change in ROE and ROA is constant (see Figure 3). Applying this version of accounting policy and using it to provide information in financial statements the impact of CIT rules on financial indicators gets eliminated. It should be noted that in the modelled situation the firm is allowed to take advantage of the CIT calculation rules and pay a reduced amount of corporate income tax in the first year as stipulated in the law (The Republic of Lithuania Law on Corporate Income Tax 2001). Consequently, the deferred profit tax liability is recorded in accounting. During the first eight years, this liability is increasing because a lower amount is paid in profit taxes compared to profit tax costs recorded in the books. Starting with Year 9, the amount of deferred taxes is evenly decreasing and becomes equal to zero in Year 25.

In addition to indicators, the change in the net profit expressed in absolute terms also has an effect on decisions related to the stock value of the firm and on setting the acquisition/sale price. From the charts provided below(see Figure 4), it is clear that the net profit in absolute terms differs in all three modeled situations in the first nine years. The difference is especially evident in Version I compared to Version III which represents a true and fair view of the firm's performance. It is obvious if the stock value of the firm is decided based on the information provided in financial statements it would be lower than the true value of stocks (or the firm) during the first eight years of the exploitation of the long-term asset, *ceteris paribus,* and higher than the true value starting with year nine.

2.3. The paired samples *t*-Test

To find evidence that indicators calculated using different accounting policies are statistically different from each other a *t*-Test is performed. The Paired-Samples *t*-Test compares two means that are from the same individual, object, or related units (Zikmund et al. 2013). The purpose of the test is to determine whether there is statistical evidence that the mean difference between paired observations on a particular outcome is significantly different from zero. Paired Samples *t*-Test is usually used to test the statistical difference between two time points, between two conditions, between two measurements, between a matched pair (Kent State University Libraries 2018). In this case, we test the statistical difference between the two measurements or ratios.

Hypotheses:

$H_{0:}$ μ1 = μ_2 (the paired means are equal);
H_A: $\mu_1 \neq \mu_2$ (the paired means are not equal),

where μ_1 is the mean of variable 1, and μ_2 is the mean of variable 2.

The test statistic for the Paired Samples *t* -Test, denoted *t*, follows the following formula:

$$t = \frac{\overline{x}_{diff} - 0}{s_{\overline{x}}}; \quad (1)$$

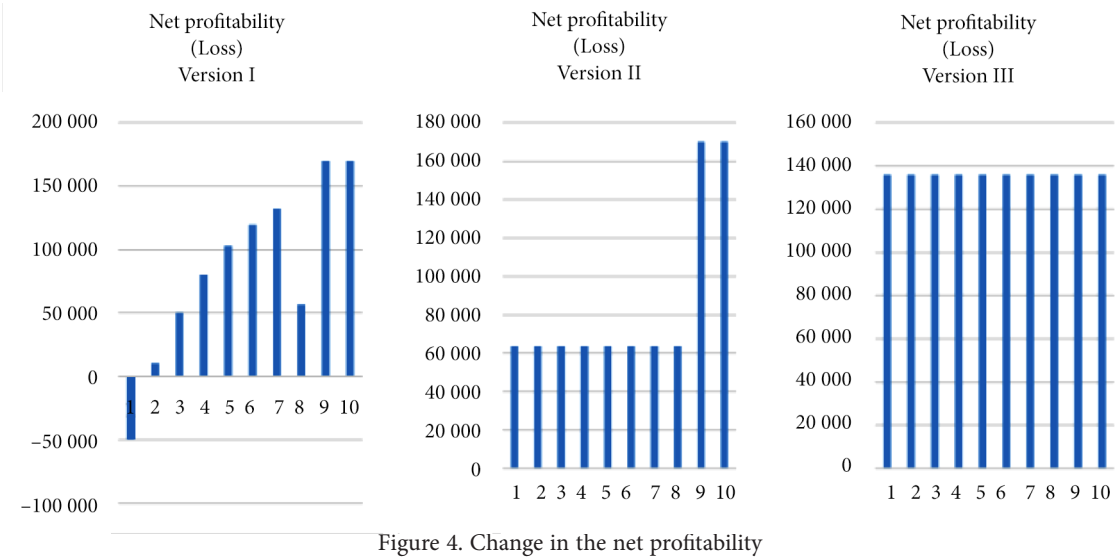

Figure 4. Change in the net profitability

$$s_{\bar{x}} = \frac{s_{diff}}{\sqrt{n}}, \quad (2)$$

where x_{diff} = sample mean of the differences; n = number of observations; s_{diff} = sample standard deviation of the differences; s_x = estimated standard error of the mean (s/sqrt(n)).

The calculated t value is then compared to the critical t value with df = n – 1 for a chosen confidence level. If the calculated t value is greater than the critical t value, then we reject the null hypothesis and conclude that the means are significantly different.

The sample dataset includes ten ratios calculated using different depreciation methods and useful life of a long-term tangible asset:

1) a depreciation period of 8 years, as allowed in tax accounting and an accelerated depreciation method (double-declining-balance method), which corresponds to Version 1 in Table 2 above, and
2) useful life of 25 years and a straight-line depreciation method. This corresponds to calculations made in Version III in Table 2 above, or the "benchmark".

We use a paired t-Test to test if there is a significant difference in the means of two numerical values of ratios calculated using different depreciation methods and useful life of a long-term tangible asset. The ratios and their abbreviations are indicated in Table 3.

Table 3. Ratios used for the paired samples t-Test

No	Ratio	Abbreviation
1	Gross profitability	grossprof
2	Net profitability	netprof
3	Current ratio	curratio
4	Quick ratio	quickra
5	Debt ratio	debtra
6	Financial leverage ratio	levratio
7	Return on equity	roe
8	Return on assets	roa
9	Return on investment	roi
10	Return on inventory	return-invt

Descriptive statistics of ratios calculated using different depreciation methods and useful life of a long-term tangible asset are provided in Table 4.

Table 4. Descriptive statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	grossprof1	.200	10	.1607	.0508
	grossprof3	.320	10	.0000	.0000
Pair 2	netprof1	.168	10	.1397	.0442
	netprof3	.272	10	.0000	.0000
Pair 3	curratio1	4.848	10	1.9594	.6196
	curratio3	4.533	10	1.9447	.6149
Pair 4	quickra1	3.906	10	1.9915	.6297
	quickra3	3.620	10	1.9447	.6149
Pair 5	debtra1	.308	10	.0545	.0172
	debtra3	.244	10	.0519	.0164
Pair 6	levratio1	.453	10	.1141	.0361
	levratio3	.328	10	.0946	.0299
Pair 7	roe1	.068	10	.0576	.0182
	roe3	.094	10	.0271	.0085
Pair 8	roa1	.346	7	.3798	.1435
	roa3	.163	7	.0169	.0064
Pair 9	roi1	.049	10	.0614	.0194
	roi3	.136	10	.0750	.0237
Pair 10	return1invtr	.337	10	.2795	.0884
	return3invtr	.544	10	.0000	.0000

We have ten pairs of variables taken from 2 samples; variable name includes digit 1 if it is calculated using Version 1 methods; variable name includes digit 3 if it is calculated using Version III methods (see Tables 1 and 2).

From the results indicated in Table 5, we can say that:

– There is a significant average difference between those pairs of indicators: *grossprof1 – grossprof3,*

Table 5. Results of the paired samples t-Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair1	grossprof1 – grossprof3	–.1200	.1607	.0508	–.2349	–.0050	–2.361	9	.043
Pair 2	*netprof1 – netprof3*	–.1035	.1398	.0442	–.2035	–.0035	–2.341	9	.044
Pair 3	*curratio1 – curratio3*	.3154	.1403	.0447	.2151	.4158	7.112	9	.000
Pair 4	quickra1 – quickra3	.2857	.1370	.0433	.1878	.3838	6.597	9	.000
Pair 5	*debtra1 – debtra3*	.0639	.0142	.0045	.0538	.0740	14.239	9	.000
Pair 6	*levratio1 – levratio3*	.1243	.0352	.0111	.0991	.1495	11.156	9	.000
Pair 7	*roe1 – roe3*	–.0263	.0814	.0258	–.0845	.0320	–1.021	9	.334
Pair 8	*roa1 – roa3*	.1825	.3630	.1372	–.1534	.5182	1.329	6	.232
Pair 9	*roi1 – roi3*	–.0866	.1318	.0416	–.1809	.0077	–2.077	9	.068
Pair 10	*return1invtr – return3invt*r	–.2070	.2796	.0884	–.4070	–.0070	–2.341	9	.044

netprof1 – netprof3, and return1invtr – return3invtr at 5% significance level.

– Average difference between indicators *curratio1 – curratio3, quickra1 – quickra3, debtra1 – debtra3, levratio1 – levratio3* is statistically significant even at a higher level (p <0.00).
– The average difference between *roi1 – roi3* is only marginally statistically significant at 10% level.

Out of 10 tested pairs of variables, only two are not statistically different. There is no significant average difference between *roe1 – roe3, and roa1 – roa3.* The mean differences of other indicators are the following:

– On average, *grossprof1* was 0.12 points lower than *grossprof3* indicator (95% Confidence Interval).
– On average, *netprof1* indicator was 0.10 points lower than *netprof3* indicator.
– On average *curratio1* indicator was 0.32 points higher than *curratio3* indicator.
– On average, *quickra1* indicator was 0.29 points higher than *quickra3* indicator.
– On average, *debtra1* indicator was 0.06 points higher than *debtra3* indicator.
– On average, *levratio1* indicator was 0.12 points higher than *levratio3* indicator.
– On average, *roi1* indicator was 0.09 points lower than *roi3* indicator.
– On average, *return1invtr* was 0.21 points lower than *return3invtr* indicator.

In summary, we observe that there is a significant difference in the means of financial indicators calculated using two distinct combinations of depreciation methods and depreciation periods. Though different appreciation methods and periods are allowed in Law on CIT when information based on those rules migrate to financial statements it might become misleading. Financial indicators calculated using different approaches to the depreciation of long-term assets show a sizable divergence from the benchmark that is also statistically significant.

The practical significance of the results should be taken with a caveat as they were obtained using a hypothetical situation. The choice of the research method was prompted by the inability to control all relevant factors that cause the particular values of indicators to occur in real-world situations.

Conclusions

The research based on the simulation method revealed that if Version I (depreciation period of eight years combined with accelerated method) and Version II (depreciation period of eight years combined with a straight-line method) of accounting policy is used to depreciate long-term assets the financial information is substantially distorted compared to Version III in specific years. In addition, the numeric values of selected indicators markedly vary during the useful life of the long-term asset. Therefore, it becomes unreasonable to use the information in financial statements for calculating financial indicators and on that basis to make management decisions related to investment, or acquisitions. The research revealed that only Version III (the useful life of 25 years combined with a straight-line depreciation method) of accounting policy, rarely used in practice by small -and middle-sized enterprises, is correct. The advantage of Version III rests on the fact that accounting is carried out using Business Accounting Standards giving no consideration to rules that

govern the calculation of CIT. It allows taking advantage of the tax reduction by correctly matching accounting and taxation rules and recording deferred tax liability. Only this version of accounting policy enables to make sound management decisions and avoid significant potential losses by investing in companies or buying their stocks.

The possible impact of misleading financial information on management decisions if Version I or Version II of accounting policy is used:

- Banks may refuse to extend credit in the first years of the company's existence because the profitability of the firm is rather low and the value of assets is significantly reduced.
- Outside investors may refuse to invest in the company or buy stocks of the company because performance indicators during the first 8 years show poorer performance.
- Outside investors may make unsound decisions starting with the year nine and pay more for the company's stock than they are truly worth because the ratios of profitability and indicators of return on assets are excessively boosted up.
- The owners of the company may refuse to retain profits in first years, and instead decide to pay out dividends; thus potentially increasing the risk of insolvency.

Imprudently chosen accounting policy produces information that does not meet the fundamental qualitative characteristics of useful financial information as defined by International Accounting Standards Board (IASB) in the conceptual framework (IFRS Foundation 2018), specifically it does not provide information that is reliable and faithful, and comparable over time. The findings of this research can be used in accountancy practice, as a teaching case, and makes a substantial contribution to the business economics.

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