The Importance of Establishing Financial Valuation of Fixed Assets in Public Companies whose Founders Are Local Self-Government Units in the Republic of Serbia

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Valuing company's fixed assets is one of the important tasks that top management needs to do in order to be able to make valid management decisions. This paper used data obtained from a representative survey of 170 public companies whose founders are local self-government units, which is about 25 % of such companies in the Republic of Serbia. Unlike the other studies, the authors analyzed fixed assets of a company before and after valuation of total fixed assets. Internal audits' recommendations and top management's assessments regarding the valuation of total fixed assets of a company were the reason why this valuation was done. It was concluded that there is a high correlation (p = .00) between the obtained total assessment given by internal auditors and top management regarding the valuation of fixed assets before and after the valuation of total fixed assets of the company.

Keywords: *Financial Valuation; Fixed Assets; Public Companies.*

Introduction

The need for real valuation of company assets has a tendency of continuous growth, especially in economies affected by transitional changes. One of the most important parts of the assets managed by top management is the fixed assets of the company. This study is one of the few studies that have focused on the analysis of the real valuation of company assets, and thus the real valuation of fixed company assets.

Real valuation of fixed assets of companies is performed on the basis of realistic presentation of the estimated value of fixed assets in use. The authors point out that fixed assets are daily used in the processes of regular business operations of companies. Starting from the above, the authors emphasized that it is of great importance to present the real value of the company's assets in business books. In the study, the authors presented an original case study that's continuation of an already published case study (Popovic *et al.,* 2017), which was based on application of International Accounting Standard 16. In contrast to the aforementioned study, this study provides results of representative research that included a much larger number of companies from public sector of the Republic of Serbia. In addition, the mentioned companies have applied real valuation and presentation of fixed assets in business books in their business.

The selected companies included in the research and the results of which are disclosed by the authors in the study were not randomly selected. In accordance with the set goal, the authors conducted research in public companies whose founders are local self-government units. This was done in the mentioned companies due to their importance for the functioning of the economy of the Republic of Serbia. Based on the above, a representative survey was conducted in about 25 % of public companies whose founders are local self-government units. Deepening of the research was done by continuing the study with already published research which was focused on practical application of international financial reporting standards (Babatunde, 2019). Essentially, this study did not focus on presenting the property valuation model (Prusak, 2017; Baranano *et al.,* 2020). Therefore, the focus of the study was to observe the consequences of making a valid decision of top management to realistically value and present such valued assets of the company in business books.

The aim of this paper was to emphasize the importance of a realistic assessment of the value of assets in companies. Realization of the goal of this research thus set by the authors was aimed at revealing possible changes in the value of stated assets of companies in financial statements. Therefore, the amount of the value of assets was determined before and after revaluation of assets in mentioned companies. In this way, an innovative authors' research was

created, whose results will be disclosed in the study. In essence, the authors were focused on determining the importance of the procedure of real valuation of assets of public companies in the Republic of Serbia whose founders are local self-government units.

In order to achieve the set goal of the research, the authors conducted an innovative research which included observing recommendations of internal auditors regarding the valuation of company assets. The authors' of this study stressed the importance of respecting recommendations of internal auditors regarding the real value of companies' assets. That is contrary to already published views of some ther authors (Radovic *et al.,* 2021) that internal control is a key corrective doing business in companies.

Literature Review

Top management of a company makes business decisions that are largely based on the obtained heterogeneous financial statements (Hope & Vyas, 2017; Gandy, 2019; Lewis & Young, 2019; Tett, 2019; Botica-Redmayne *et al.,* 2019; Caruana, 2021). Based on the received financial reports, top management makes valid business decisions which have been pointed out by numerous authors (such as Radovic., 2021).

Top management, especially in transition economies, strives to improve the business of the company mostly through the use of valid business decisions, as indicated by numerous authors such as: Quattrone, 2017.

When making business decisions, top management continuously strives to increase the security of reports received from the managers of certain parts of the company. Therefore, it is not surprising the behavior of top management that introduces various forms of control within the company's business.

The most common form of introduced control is the implementation of internal control (Wynen & Verhoest, 2016; Jingwen, 2017; Chen *et al.,* 2017; Chen, 2019; Coffee, 2019) as part of the regular business operations of different legal entities in one economy or a state.

In this study, the authors took into account the already published views of many authors that there are limits in doing business primarily with the public sector (Reginato et al., 2016; Bekkers & Tummers, 2018; Biščak & Benčina, 2019; Vitomir et al., 2020), noting that the views expressed can be applied in the business of other forms of enterprise organization (Smith, 2000; Nosheen & Rashid, 2019; Brede & Henn, 2019; Xie *et al.,* 2020; Esmaeili1 *et al.,* 2021; Hua *et al.,* 2021).

The authors of this study have taken into account the views of numerous authors (Kalvet *et al.,* 2012; Cocris & Elena-Nucu, 2013; Wang, 2016; Scalera, 2016; Wirth et *al.,* 2016) regarding the essential importance of public sector business on the economy of a country. In addition, they strengthened them with attitudes that essentially indicate the importance of changing the overall economic environment in the economy, and all this was done with the aim of emphasizing the importance of possible business success that can achieve top management in real time (Wysocka, 2021; Godlewska, 2021; Malakauskas & Lakstutiene, 2021).

The public sector significantly affects the change of the overall business climate in one economy (Popovic, 2014), but the impact is also visible on the basis of rapid changes in the economic structure of the region within the country as a whole (Adamkovicova, 2014; Lulewicz-Sas & Kilon, 2014; Kanapickiene & Marcinkevicius, 2014; Kukovic *et al.,* 2016).

Valuation of public companies' assets is strongly related to real valuation and application of numerous standards (Malone *et al.,* 2016) in real business of heterogeneous companies. In this way, especially companies that are organized as corporate (Murphy, 2019) can essentially in a real (realistic) way perform a real valuation of their assets (Durocher & Gendron, 2014), which is done in order to achieve better business results.

Valuation of company assets is of great importance for the normal and realistic presentation of the value of assets in business books of a large number of different legal entities operating in the market (Davila *et al.,* 2015; Misund, 2018).

The authors of the study also took into account the previously stated views of the authors who pointed out that after the end of the business period it is of great importance to do the audit work (Izza, 2019). In this way, it would be possible to objectively show the real valuation of assets in a company, and it would be possible to show the real business results of a company in a particular business period.

Research Methodology

One of the goals and angles important for defining this research in its focus was to observe and appreciate general attitudes regarding the necessity of making valid management decisions in companies. Essentially, the research objectives thus set were basically consistent with the already stated views (Blair, 2017) of the author, who emphasized the importance of observing financial reporting in companies. That was only the basis for the primary determination of the research goal, but the authors of the study did not stop there, but went one step further. Namely, they carried out methodological innovation and observation of management decisions, which in this study included the determination of the financial assessment of fixed assets in the observed precincts. The goal of the presented methodological framework is set in the context of a possible wider application of the real valuation of fixed assets in a large number of heterogeneous companies.

Starting from the presented goal of the authors of this study, which was within the given methodological framework, the authors conducted a representative survey. It was carried out in 170 public companies in the Republic of Serbia, whose founders are local self-government units. The representativeness of the survey was achieved in the way that the survey was conducted in about 25 % of public companies whose founders are local self-government units. In this way, the basis for the analysis of the obtained data was created. The main authors analyzed the data obtained from the survey and this was the basis for further gaining confidence based on the statistical model of the behavior of the mentioned companies, as well as testing the assumptions from the hypotheses developed by the authors of this study. In this way, the authors of the study conducted research that

largely coincides with the already published views of the authors (Burns & Jollands, 2020). Namely, they emphasized the importance of respecting the accounting profession, especially if it is a broader observation of the public interest in the functioning of the state. In this way, the author's study comes close to the views of the author that were highlighted a little earlier.

The authors of this study, in contrast to the aforementioned authors, emphasized the importance of practical application of property valuation in public companies. Acknowledging what was said, the authors of the study performed an analysis and acquired strengthened views on property valuation based on the observation of the research period that was in the period 2019–2020.

Based on the insight into the business books of the surveyed companies, the authors obtained assurances about the value of the assets before and after the evaluation of the assets of the surveyed public companies. This created the conditions for realistic determination of conclusions by the author regarding the real value of the property managed by top management in public companies in the Republic of Serbia, whose founders are local self-government units. On the basis of what has been said, it follows that the data collection took place through a representative survey in a relatively long enough period of observation, with the use of the method of multi-year monitoring and observation of property valuation in the mentioned companies.

The first level of reliability and credibility of the research, which was done by the author of the study, was based on the obtained values of the total assets, before and after the revaluation. Data on the value of the company's assets were obtained from the top management of the surveyed companies.

The second level, which raised the level of credibility, was aimed at monitoring the work of internal auditors in the surveyed companies. Namely, in the mentioned companies, during 2020, internal auditors, on the order of the top management, audited the valuation system of the total assets available to the companies. Internal auditors prepared audit reports that were submitted to top management. In them, recommendations were given to top management to reassess the value of total assets in companies where top management makes business decisions. The top management adopted the recommendations of the internal auditor and during 2020 a new assessment of total assets was carried out in the companies. In this way, the basis was created for the newly obtained values of the total assets to be entered in the business books of the company.

The third level of research security in this study was created after the statistical processing of the obtained survey results. In this way, the authors of this study in the first half of 2021 were able to present the relevant research results regarding the valuation of assets in the mentioned companies.

The implementation of total security related to the integrity of this study was achieved in such a way that the authors guaranteed anonymity to all surveyed companies. They basically guaranteed that the generals of the companies that submitted the requested data regarding the value of the total assets before and after the revaluation will not be published. The interest of the top management in the surveyed data can be seen from the data that out of 170

companies surveyed, 90 of them submitted data on the previous value of fixed assets as well as data on the value of fixed assets after a new assessment of fixed assets. It should be added that 80 surveyed companies submitted data on the value of intangible assets before and after the new assessment of intangible assets. In order to establish a reasonable analysis regarding the property value, all data were submitted to the top management in 000 dinars, that is, the data regarding the property value were submitted in an identical way as they are kept in the financial reports of the surveyed companies.

The general principles of security regarding the acquisition of the author's system assurance were strengthened by the fact that the surveyed companies submitted data on the work of internal auditors and top management regarding the valuation of the company's total assets before and after the revaluation. The obtained data regarding the evaluations of internal auditors and top management regarding the valuation of the company's assets ranged from 1 to 10. At the same time, it should be emphasized that grade 1 is the evaluation of the least reliable value of the examination, and study has three grade 10 is the highest level of safety in terms of the value of the equipment that the company has at its disposal.

Basically, the authors of the study did the research in such a way that they respected the position of the author (Carnegie, 2022), who emphasized the importance of redefining accounting, viewed through the prism of upcoming real events in the company's operations. That was just the starting point, and then they collected data on the value of the assets of the surveyed public companies in an original way, then innovated the research in such a way that they highlighted the importance of the work of internal auditors and top management in relation to the assessment of the total assets of the company before and after the revaluation procedure was carried out in the companies. Thus, in the author's opinion, the objectivity of the study was achieved in terms of asset valuation in public companies, as well as based on the applied value analysis process (t) that was applied. Essentially applied methods of analysis in the study can serve in the theoretical and practical business of a large number of public and other companies.

The objectivity of the study regarding the valuation of assets in companies is reflected in the existence of a process that was created by establishing an analysis of the value of the company's assets (before and after revaluation).

The logical units in which the results of the research are presented.

In the first part of the research, the authors determined the existence of a relationship between the total stated financial value of the property and the value of the company's fixed assets in the business books before and after the revaluation.

In the second part of the research, the authors determined comparisons of the overall ratings obtained by internal auditors regarding the presentation of the value of fixed assets and intangible investments before and after revaluation in the surveyed companies.

In the third part of the research, the authors determined a comparison of the overall ratings obtained from the top management in relation to the obtained values of fixed

assets and intangible investments before and after the revaluation in the surveyed companies.

Research Hypotheses

In order to be able to come to valid attitudes and conclusions regarding the valuation of fixed assets of companies, which arose on the basis of recommendations of the internal auditor in companies founded by local self-government units in the Republic of Serbia, the authors developed 8 hypotheses:

HO: 1 There is no correlation between the value of total fixed assets (fixed assets and intangible assets) and the reported accounting value before revaluation in business books of companies.

H0: 2 There is no correlation between the value of total fixed assets (fixed assets and intangible assets) and the reported accounting value after revaluation in business books of companies.

H0: 3 There is no correlation between the total valuation of fixed assets and the total reported accounting value of fixed assets before revaluation, which was assessed by internal auditors in companies.

H0: 4 There is no correlation between the total assessment of fixed assets and the total reported accounting value of fixed assets after revaluation, which was assessed by internal auditors in companies.

 H0: 5 There is no correlation between the total assessment of fixed assets and the total reported accounting value of fixed assets before revaluation, which was assessed by representatives of top management in companies.

H0: 6 There is no correlation between the total assessment of fixed assets and the total reported accounting value of fixed assets after revaluation, which was assessed by representatives of top management in companies.

H0: 7 There is no correlation between the total assessment obtained by the internal auditors before valuation of the total fixed assets of a company and the total assessment given by the internal auditor after valuation of the total fixed assets of a company.

H0: 8 There is no correlation between the total rating given by top management before valuation of the total fixed assets of a company and the total rating obtained by top management after valuation of the total fixed assets of a company.

Results

The obtained results of these authors were presented through 4 units that reflect the presented research.

Observation of the Accounting Condition of Fixed Assets in Companies

The first part of this study presents the obtained research results where the basis was focused on the analysis of accounting condition of fixed assets in companies before and after revaluation of fixed assets of companies and introduction of the obtained valuation results in business books.

The presentation of valuation in business books of companies was given in the presentation of Tables 1 and 2, as well as the presentation of values that were created after revaluation of fixed assets of companies (Tables 3 and 4).

Table 1

Presentation of the Value of Eta of the Correlation Coefficient of the Accounting Balance before Valuation in Business Books of Companies

	Description	**Coefficient value**
Eta correlation coefficient	Accounting balance before valuation	**.307**

Source: authors' calculation

Based on the presentation in Table 1, it follows that the value of the Eta coefficient is such that there is a significant correlation between the presentation of the accounting balance before revaluation and the value of total fixed assets.

Table 2

Overview of Descriptive Indicators of Fixed Assets and Intangible Assets before Revaluation of Fixed Assets of Companies

Total assets of the company		**Statistical indicators**
Accounting balance of fixed assets before revaluation (expressed in 000 dinars)	Fixed assets	Arithmetic mean	**2333**
		5 % Trimmed arithmetic mean	**1869.81**
		Median	**504.50**
		Variance	19631853.322
		Standard deviation	4430.785
		Minimum	1
		Maximum	13000
		Skewness	2.012
		Kurtosis	2.180
	Intangible assets	Arithmetic mean	**253.69**
		5% Trimmed arithmetic mean	**216.82**
		Median	**142.00**
		Variance	119574.926
		Standard deviation	345.796
		Minimum	50
		Maximum	1121
		Skewness	2.047
		Kurtosis	2.490

Source: authors' calculation

After the presentation of statistical-descriptive indicators in Table 2, it follows that there is a significantly higher book value of fixed assets (Trimmed arithmetic mean is 1869.81) in relation to the obtained values of intangible assets (Trimmed arithmetic mean is 216.82).

Table 3

Presentation of the Value of Eta of the Correlation Coefficient of the Accounting Balance After Valuation in Business Books of Companies

	Description	Coefficient value
Eta correlation coefficient	Accounting balance after valuation	**.350**

Source: authors' calculation.

Table 3 shows the obtained results of the Eta correlation coefficient. There is a significant correlation between the value of total fixed assets and the reported carrying amount after the revaluation of fixed assets in enterprises.

The results indicate that the obtained Eta value correlation coefficient before valuation is .307, and after valuation in companies is .350. This indisputably indicates that after revaluation on assets in companies, their value increases significantly, i.e. there is a significant deviation in real presentation of the value of fixed assets in business books of companies.

Table 4

Overview of Descriptive Indicators of Fixed Assets and Intangible Assets after Revaluation of Fixed Assets of Companies

	Total assets of the company		Statistical indicators
Accounting balance of fixed assets after revaluation (expressed in 000 dinars)	Fixed assets	Arithmetic mean	**3613.86**
		5% Trimmed arithmetic mean	**3012.71**
		Median	**1190.00**
		Variance	37468612.260
		Standard deviation	6121.161
		Minimum	40
		Maximum	18001
		Skewness	1.818
		Kurtosis	1.589
	Intangible assets	Arithmetic mean	**290.60**
		5% Trimmed arithmetic mean	**248.44**
		Median	**145.00**
		Variance	159342.851
		Standard deviation	399.178
		Minimum	51
		Maximum	1289
		Skewness	2.024
		Kurtosis	2.429

Source: authors' calculation

Table 4 shows the statistical indicators on the basis of which it can be seen that there is a significantly higher book value, especially for fixed assets (Trimmed arithmetic mean is 3012.71) in relation to the obtained values of intangible assets (Trimmed arithmetic mean is 248.44).

Assessment of Internal Auditors Regarding the Valuation of Fixed Assets of Companies

In the second part, the results obtained were presented, which included assessment obtained from internal auditors regarding the previous valuation of the fixed assets of companies (Tables 5 and 6) and after the new assessment (Tables 7 and 8) in companies.

Table 5

Presentation of Eta Value Correlation Coefficient Based on the Given Assessments by Internal Auditors in Surveyed Companies before Reassessment the Value of Assets

	Description	Coefficient value
Eta correlation coefficient	Accounting balance before revaluation	**.851**

Source: authors' calculation

The results shown in Table 5 indicate that Eta value correlation coefficient is such that there is a correlation based on the assessment given by companies' internal auditors in relation to importance of valuing fixed assets before revaluation in companies.

Table 6

Review of Descriptive Indicators of Internal Auditors' Assessment before the New Valuation of Fixed Assets and Intangible Assets in Companies

	Total assets of the company		Statistical indicators
Internal auditor's assessment before re-evaluation (based on a score in the range 1-10)	Fixed assets	Arithmetic mean	**1.91**
		5% Trimmed arithmetic mean	**1.90**
		Median	**2.00**
		Variance	.666
		Standard deviation	.816
		Minimum	1
		Maximum	3
		Skewness	.166
		Kurtosis	-1.479
	Intangible assets	Arithmetic mean	**4.58**
		5% Trimmed arithmetic mean	**4.58**
		Median	**5.00**
		Variance	.703
		Standard deviation	.839
		Minimum	3
		Maximum	6
		Skewness	.021
		Kurtosis	-.553

Source: authors' calculation

Table 6 shows the statistical indicators based on which it can be seen that the overall assessment of intangible assets is significantly higher (median for fixed assets is 2) than intangible assets (median for intangible assets is 5) in the surveyed companies.

Table 7

Presentation of Eta Value Correlation Coefficient Based on the Given Assessments by the Internal Auditors in Surveyed Companies after Reassessment of the Value of Assets

	Description	Coefficient value
Eta correlation coefficient	Accounting balance after revaluation	**.582**

Source: authors' calculation

The results shown in Table 7 indicate that the value of Eta value correlation coefficient is such that there is a strong correlation based on the assessment obtained by companies' internal auditors in relation to importance of valuing companies' assets after re-valuation assets in companies.

Table 8

Overview of Descriptive Indicators of Internal Auditors' Assessment After New Valuation of Fixed Assets and intangible Assets in Business Books of Companies

	Total assets of the company		Statistical indicators
Internal auditor's assessment after re-evaluation (based on a score in the range 1-10)	Fixed assets	Arithmetic mean	**6.94**
		5 % Trimmed arithmetic mean	**6.88**
		Median	**6.00**
		Variance	1.289
		Standard deviation	1.135
		Minimum	6
		Maximum	9
		Skewness	.676
		Kurtosis	-1.107
	Intangible assets	Arithmetic mean	**8.28**
		5 % Trimmed arithmetic mean	**8.31**
		Median	**8.00**
		Variance	.404
		Standard deviation	.636
		Minimum	7
		Maximum	9
		Skewness	-.304
		Kurtosis	-.640

Source: authors' calculation

Table 8 shows the statistical indicators that show that the overall assessment of internal auditors in terms of reported intangible assets is significantly higher than the assessment of fixed assets after revaluation (median for fixed assets is 6, and for intangible assets 8).

Assessment of Top Management of Companies in Terms of Valuation of Fixed Assets of Companies

The third part presents the obtained results, which included the obtained assessments of top management of companies in terms of valuation of fixed assets of companies before (Tables 9 and 10) and after new assessment (Tables 11 and 12) in companies.

Table 9

Presentation of Eta Value Correlation Coefficient, Which is Based on the Obtained Assessment of Top Management Regarding the Presentation of the Previous Value of Companies' Assets in Business Books

	Description	Coefficient value
Eta correlation coefficient	Top management assessment before revaluation	**.861**

Source: authors' calculation

Table 9 shows Eta value correlation coefficient (.861) where it shows that there is a significant correlation based on obtained assessment given by top management of companies and the reported values of assets before revaluation in business books of the companies.

Table 10

Presentation of Descriptive Indicators Before Revaluation of Fixed Assets and Intangible Assets in Business Books of Companies

	Total assets of the company		Statistical indicators
Top management assessment before revaluation (based on a score in the range 1-10)	Fixed assets	Arithmetic mean	**3.68**
		5 % Trimmed arithmetic mean	**3.70**
		Median	**4.00**
		Variance	.221
		Standard deviation	.470
		Minimum	3
		Maximum	4
		Skewness	-.774
		Kurtosis	-1.434
	Intangible assets	Arithmetic mean	**7.11**
		5 % Trimmed arithmetic mean	**7.13**
		Median	**8.00**
		Variance	1.949
		Standard deviation	1.396
		Minimum	5
		Maximum	9
		Skewness	-.520
		Kurtosis	-1.089

Source: authors' calculation

Table 10 shows the statistical indicators that indicate that the overall assessment given by top management for intangible assets is significantly higher compared to the assessment of fixed assets before revaluation (median for fixed assets is 4, and for intangible assets 8).

Table 11

Presentation of the Value of Eta Value Correlation coefficient, which is Based on the Obtained Assessment of Top Management in Terms of Presentation After Reassessment of the Value of the Companies' Assets in business Books

	Description	Coefficient value
Eta correlation coefficient	Assessment of top management after revaluation	**.381**

Source: authors' calculation

Table 11 shows the obtained values of the Eta correlation coefficient, i.e. the results do not show a significant correlation (The value of the coefficient is .381), which is based on the assessment given by top management to companies in relation to the obtained results of property values after revaluation of assets in companies

Table 12

Review of Descriptive Indicators After Revaluation of Fixed Assets and Intangible Assets in Business Books of Companies

	Total assets of the company		Statistical indicators
Assessment of top management	Fixed assets	Arithmetic mean	**8.39**
		5% Trimmed arithmetic mean	**8.43**
		Median	**9.00**
		Variance	1.813
		Standard deviation	1.347
		Minimum	6
		Maximum	10
		Skewness	-.464
		Kurtosis	-.955
Top management assessment after revaluation (based on a score in the range 1-10)	Intangible assets	Arithmetic mean	**9.26**
		5% Trimmed arithmetic mean	**9.29**
		Median	**9.00**
		Variance	.373
		Standard deviation	.611
		Minimum	8
		Maximum	10
		Skewness	-.209
		Kurtosis	-.541

Source: authors' calculation

Table 12 shows the statistical parameters that show that in the overall assessment of the top management of companies given for intangible assets and fixed assets, the median values obtained for both forms of assets are 9. However, when looking at the values of Arithmetic mean, it can be seen that there is a tendency for slightly higher valuations given for the company's intangible assets.

Assessment of Internal Auditors and Top Management of Companies in Terms of Prior and Subsequent Valuation of Total Fixed Assets of Companies

In the fourth part, the authors' results were presented in terms of assessment made by company's internal auditors in terms of valuing the total fixed assets of companies before (Table 13) and after the valuation (Table 14) in companies, in fact, the assessment made by company's top management regarding valuation of fixed assets of companies before (Table 15) and after new valuation (Table 16) of fixed assets in companies.

Table 13

Pearson Correlation Coefficient

		Assessment of internal auditors before valuation
Auditor's assessment after valuation	Pearson correlation	.419**
	Sig. (2-tailed)	**.000**
	N	170

Source: authors' calculation

Table 13 shows the Pearson coefficient correlation. It shows that there is a high level of correlation (p = .00) between the obtained overall assessment given by internal auditors before and after the revaluation of total fixed assets in companies.

Table 14

Descriptive Indicators for Internal Auditors' Assessment Before and After the Valuation of Fixed Assets in Companies

	Mean	N
Auditor's assessment before valuation	**3.16**	170
Auditor's assessment after valuation	**7.57**	170

Source: authors' calculation

Table 14 presents the descriptive indicators, i.e. the arithmetic mean, on the basis of which it can be noticed that there is a higher assessment given by the company's internal auditors after the assessment of the total fixed assets in the companies.

Table 15

Pearson Correlation Coefficient

		Assessment of top management after valuation
Top management rating before revaluation	Pearson correlation	.560
	Sig. (2-tailed)	**.000**
	N	170

Source: authors' calculation

Table 15 shows the Pearson correlation coefficient which shows that there is a significant correlation (p = .00) of the overall rating given by the top management of companies in the process of valuation of fixed assets before and after the new valuation in companies.

Table 16

Descriptive Indicators for+ Assessment of top Management Before and After the Valuation of Fixed Assets in Companies

	Arithmetic mean	N
Top management assessment before valuation	**5.29**	170
Top management assessment after valuation	**8.80**	170

Source: authors' calculation.

Table 16 shows descriptive indicators that indicate that the ratings of top managers are significantly higher after the assessment of the value of total fixed assets in companies.

Data Analysis

The statistical package SPSS IBM 22.0 was used for data processing. In order to test the set of hypotheses, descriptive statistics were made with detailed indicators (trimmed arithmetic mean, median), but also indicators of normality. From the statistical tests, different forms of correlation coefficients were used for different types of measurement levels of variables (Eta coefficient and Pearson correlation coefficient).

Discussion

The research revealed that there are several key observations regarding the real valuation of assets in companies.

First, there is a significant discrepancy between the value of total fixed assets and the book balance of fixed assets in companies observed before the revaluation. Representations of the amount of the mentioned values were obtained on the basis of the state in the business books of the company (Table 1), the authors point out that H0:1 can be safely rejected, because the values of the Eta correlation coefficient show that there is a significant correlation between the accounting state before the revaluation and the value of total fixed assets (expressed through the value of fixed assets and intangible investments). The stated views were strengthened after the presentation of statistical-descriptive indicators (Table 2), where the existence of a significantly higher book value of fixed assets (Trimmed arithmetic mean = 1869.81) compared to the obtained values of intangible assets (Trimmed arithmetic mean = 216.82) is observed.

Within the accounting presentation after the revaluation of fixed assets, (Table 3), the authors point out that H0:2 can be safely rejected, because there is a significant correlation between the value of the total fixed assets of the property and the book value after the revaluation. The stated views are strengthened in the presentation of Table 4, where significantly higher book values are observed for fixed assets (Trimmed arithmetic mean = 3012.71) compared to intangible investments (trimmed arithmetic mean = 248.44). The results obtained in the study regarding the accounting presentation in the company's business books and the importance of realistic presentation essentially coincide with the already published views of numerous authors such as (Majstorovic *et al.,* 2015).

Second, that there is a significant correlation between the assessment of internal auditors in terms of fixed assets and the stated accounting values before revaluation in companies (Table 5), and it is safe to reject H0: 3. This is strengthened by the presentation in (Table 6) because the values of total of intangible assets significantly higher than the assessment given by internal auditors regarding fixed assets before revaluation.

Similar evaluations of internal auditors were given regarding the valuation of the company's fixed assets in business books after revaluation, so HO: 4 can be rejected (Eta correlation value = .350) (Table 7). The stated views are strengthened by showing statistical indicators that indicate that the overall rating of internal auditors for intangible assets is significantly higher than the rating of fixed assets after revaluation (Median for fixed assets = 6, and for intangible assets = 8), (Table 8).

Thirdly, that there is a correlation between the total book value of fixed assets and the rating obtained from the company's top management regarding the valuation of the company's fixed assets before revaluation, and H0: 5 can be safely rejected (Eta correlation = .582), (Table 9). The stated views are reinforced (Table 10) by the presentation of statistical indicators that indicate that the total valuation of intangible assets is significantly higher compared to the valuation of fixed assets before revaluation by top

management, Median for fixed assets = 4, and for intangible assets = 8),

However, H0: 6 can be accepted because the value (Eta correlation = .381), (Table 11) does not show the correlation of the ratings of the company's top management regarding the revaluation of the company's fixed assets with the presentation of the value of the fixed assets. The stated views are strengthened (Table 11) by the presentation of statistical indicators that indicate that the total valuation of intangible assets is significantly higher compared to the valuation of fixed assets before revaluation by top management, Median for fixed assets = 9, and for intangible assets = 9), However, when looking at the values of the abbreviated arithmetic mean, it is observed that there is a tendency for slightly higher scores obtained for intangible assets.

Fourth, that there is a high degree of correlation (p=.000), based on the presentation of the Pearson correlation coefficient between the overall assessment of internal auditors before and after the overall assessment of the valuation of the company's fixed assets. Therefore, H0: 7 can be completely rejected (Table 13). Nevertheless, based on the display of descriptive indicators, i.e. the arithmetic mean, it can be seen that there is a higher rating given by the company's internal auditors after the evaluation of the company's total fixed assets (Table 14).

In addition, the authors point out that H0:8 can be rejected, because the Pearson correlation coefficient shows the existence of a significant correlation (p=.000) between the overall rating given by the company's top management before and after the revaluation of fixed assets (Table 15). The stated views are strengthened on the basis of descriptive indicators because they indicate that the ratings of the top management are significantly higher after the re-evaluation of the company's total fixed assets (Table 16). The views expressed are fully consistent with the already stated views of the authors (Mijic & Popovic, 2016), who indicated the practical importance of introducing the real values of fixed assets into the company's business books, which is in line with the basic idea in the work of the authors of this study to determine the real observation of the value of fixed assets in the business of heterogeneous companies.

Conclusions

It should be noted that the similarities of the research results obtained in this study with the results published in other studies have certainly been achieved. However, due to differences in the dimensions of time and space in which other similar researches were made, due to differences in the development of economies in which other research was done, a comprehensive and generally accepted analysis cannot be fully achieved.

Therefore, the acceptance or rejection of any hypothesis should be considered in relation to what has been said above regarding the preparation of this study. Based on the results of the study, four basic conclusions can be formed.

First, the results of the study indicate the importance of realistic reporting, especially in relation to the statement of the value of the assets managed by the company's top management, especially in public companies. Within this unit, the authors discovered that there is a correlation

between the value of total fixed assets and the reported book value before revaluation in the business books of the company. Public companies have a significantly higher book value of fixed assets compared to the reported value of intangible assets. The main authors of the study found that the total value of assets in companies after revaluation is significantly higher, as well as that there is a significantly higher book value of fixed assets compared to the obtained values of intangible investments.

Second, according to the assessment of the company's internal auditors, there is a correlation between the total value of fixed assets and the total reported book value of fixed assets before revaluation. In addition, there is a correlation between the total assessment of the amount of fixed assets and the total reported book value of fixed assets after revaluation.

Third, according to the company's top management, there is a correlation between the total value of fixed assets and the total reported book value of fixed assets before revaluation. However, when it comes to the situation after the revaluation of the fixed assets in the company, there is no significant correlation between the total assessment of the fixed assets and the total reported book value of the fixed assets after the revaluation. However, there is a tendency for higher ratings for the company's intangible assets.

Fourth, according to the assessment of the company's internal auditors, but also of the top management, there is a correlation between the total values of the company's fixed assets and the total oceans they gave before and after the assessment of the company's total fixed assets. It should be emphasized that there are still higher ratings given by internal auditors after the revaluation of the company's assets.

In the end, it can be concluded that the study indicated the existence of great importance of correct and realistic presentation of the value of fixed assets in the business books of the company. It is the basis for making valid business decisions by top management.

References

Adamkovicova, B. (2014). Assessment of changes within the economic structure of the Trencin region. *Economics and Management*, 19(2), 140–148. https://doi.org/10.5755/j01.em.19.2.5082

Babatunde, S. (2019). Governmental Financial Reporting Reforms and Relationship Marketing: An Analysis of International Public Sector Accounting Standards Implementation. *Journal of Promotion Management,* 25(5), 700–721. https://doi.org/10.1080/10496491.2019.1585600

Baranano, A., Inaki De La Pena, J., & Moreno, R.(2020). Valuation of real-estate losses via Monte Carlo simulation, *Economic Research-Ekonomska Istrazivanja*. 33(1),1867–1888. https://doi.org/10.1080/1331677X.2020.1756372

Bekkers, V., & Tummers, L. (2018). Innovation in the Public Sector: Towards an Open and Collaborative Approach, *International Review of Administrative Science*, 84(2), 209–213. https://doi.org/10.1177/0020852318761797

Biscak, M., & Bencina, J. (2019). The Impact of HRM Practices on the Performance of Municipalities. The Case of Slovenia. *Transylvanian Review of Administrative Sciences*, 15(58 E): 5–23. https://doi.org/10.24193/tras.58E.1

Blair, D. (2017). 'Private company finance and financial reporting: what do we know?': a practitioner's view. *Accounting and Business Research*, 47(5), 538–539. https://doi.org/10.1080/00014788.2017.1318513

Botica-Redmayne, N., Laswad, F., & Ehalaiye, D.(2019). Evidence on the costs of changes in financial reporting frameworks in the public sector, *Public Money & Management*. https://doi.org/10.1080/09540962.2019.1679482

Brede, M., & Henn, C.(2019). Finland's public sector balance sheet, *Baltic Journal of Economics*, 19(1),176–194. https://doi.org/10.1080/1406099X.2019.1585062

Burns, J., & Jollands, S. (2020). Acting in the public interest: accounting for the vulnerable, *Accounting and Business Research*, 50(5), 507–534. https://doi.org/10.1080/00014788.2020.1770940

Carnegie, G. (2022). Accounting 101: redefining accounting for tomorrow, *Accounting Education*, 31(6), 615–628. https://doi.org/10.1080/09639284.2021.2014915

Caruana, J. (2021). The proposed IPSAS on measurement for public sector financial reporting-recycling or reiteration?, *Public Money & Management*, 41(3),184–191. https://doi.org/10.1080/09540962.2021.1873594

Cocris, V., & Elena-Nucu, A.(2013). Monetary policy and financial stability: empirical evidence from Central and Eastern European countries, *Baltic Journal of Economics*, 13(1),75–98. https://doi.org/10.1080/1406099X.2013.10840527

Coffee, J. (2019). Why do auditors fail? What might work? What won't? *Accounting and Business Research*, 49(5), 540–561. https://doi.org/10.1080/00014788.2019.1611715

Chen, H., Wang, D., & Zhou, N. (2017). A Comprehensive and Quantitative Internal Control Index: Construction, Validation, and Impact, *Review of Quantitative Finance and Accounting*, 49, 337–377. https://doi.org/10.1007/s11156-016-0593-x

Chen, R. (2019). Internal Control Audit Fee and Internal Control Audit Quality-Evidence from Integrated Audits. *Open Journal of Business and Management*, 7, 292–311. http://www.scirp.org/journal/ojbm; https://doi.org/10.4236/ojbm.2019.71020

Davila, A., Foster, G., & Jia, N.(2015). The Valuation of Management Control Systems in Start-Up Companies: International Field-Based Evidence, *European Accounting Review*, 24(2), 207–239. https://doi.org/10.1080/09638180.2014.965720

Durocher, S., & Gendron, Y. (2014). Epistemic commitment and cognitive disunity toward fair-value accounting, *Accounting and Business Research*, 44(6), 630–655. https://doi.org/10.1080/00014788.2014.938012

Esmaeili, A., Haghgoo, I., Davidaviciene, V., & Meidute-Kavaliauskiene, I. (2021). Customer Loyalty in Mobile Banking: Evaluation of Perceived Risk, Relative Advantages, and Usability Factors, *Inzinerine Ekonomika-Engineering Economics*, 32(1), 70–81. https://doi.org/10.5755/j01.ee.32.1.25286

Gandy, B. (2019). '21st century scandals: towards a risk approach to financial reporting scandals': a practitioner view. *Accounting and Business Research*, 49(5), 536–539. https://doi.org/10.1080/00014788.2019.1611711

Godlewska, M. (2021). The Impact of Interplay between Formal and Informal Institutions on Innovation Performance: Evidence from CEECs. *Inzinerine Ekonomika-Engineering Economics*, 32(1), 15–26. https://doi.org/10.5755/j01.ee.32.1.27390

Hope, K., & Vyas, D. (2017) Private company finance and financial reporting, *Accounting and Business Research*, 47(5), 506–537. https://doi.org/10.1080/00014788.2017.1303963

Hua, Z., Yaning, L., & Wang, J. (2021). Study of the Transformation of Industrial Heritage from the Perspective of Holistic Governance, *Transylvanian Review of Administrative Sciences*, No. 62 E/2021, pp. 81–93. https://doi.org/10.24193/tras.62E.5

Izza, M. (2019). 'Why do auditors fail? What might work? What won't?': a practitioner view. *Accounting and Business Research*, 49(5), 562–564. https://doi.org/10.1080/00014788.2019.1611717

Jingwen, N. (2017). When Internal Control Meets Internal Audit: Conflict or Combine?-Based on the Case Analysis of CIMC. *Open Journal of Accounting*, 6, 43–51. http://www.scirp.org/journal/ojacct; https://doi.org/10.4236/ojacct.2017.62004

Lewis, C. & Young, S. (2019). Fad or future? Automated analysis of financial text and its implications for corporate reporting. *Accounting and Business Research*, 49(5), 587–615. https://doi.org/10.1080/00014788.2019.1611730

Lulewicz-Sas, A., & Kilon, J. (2014). Analysis of the effectiveness of socially responsible investing funds in Poland. *Economics and Management*, 19(4), 338–345. https://doi.org/10.5755/j01.em.19.4.8101

Kalvet, T., Vanags, A., & Maniokas, K.(2012). Financial engineering instruments: the way forward for cohesion policy support? Recent experience from the Baltic states. *Baltic Journal of Economics*,12(1), 5–22. https://doi.org/10.1080/1406099X.2012.10840508

Kanapickiene, R., & Marcinkevicius, R. (2014). Possibilities to apply classical bankruptcy prediction models in the construction sector in Lithuania. *Economics and Management*, 19(4), 317–332. https://doi.org/10.5755/j01.em.19.4.8095

Kukovic, S., Hacek, M., & Bukovnik, A. (2016). The Issue of Local Autonomy in the Slovenian Local Government System. *Lex Localis - Journal of Local Self-Government*, 14(3), 303–320. https://doi.org/10.4335/14.3.303-320(2016)

Malakauskas, A., & Lakstutiene, A. (2021). Financial Distress Prediction for Small and Medium Enterprises Using Machine Learning Techniques. *Inzinerine Ekonomika-Engineering Economics*, 32(1), 4–14. https://doi.org/10.5755/j01.ee.32.1.27382

Malone, L., Tarca, A., & Wee, M. (2016). IFRS non-GAAP earnings disclosures and fair value measurement. *Accounting & Finance*, 56(1), 59–97. https://doi.org/10.1111/acfi.12204

Majstorovic, A., Popovic, S., & Volf, D. (2015). Teorija i politika bilansa, drugo izmenjeno i dopunjeno izdanje, Novi Sad: Feljton.

Mijic, R., & Popovic, S. (2016). Finansijsko Racunovodstvo, Banja Luka: City print.

Misund, B.(2018). Valuation of salmon farming companies. *Aquaculture Economics & Management*, 22(1), 94–111. https://doi.org/10.1080/13657305.2016.1228712

Murphy, R. (2019). 'Corporate tax avoidance: is tax transparency the solution?': a practitioner view. *Accounting and Business Research*, 49(5), 584–586. https://doi.org/10.1080/00014788.2019.1611728

Nosheen & Rashid, A. (2019). Business orientation, efficiency, and credit quality across business cycle: Islamic versus conventional banking. Are there any lessons for Europe and Baltic States?. *Baltic Journal of Economics*, 19(1), 105–135. https://doi.org/10.1080/1406099X.2018.1560947

Popovic S. (2014). Socio-ekonomski faktori ograničenja razvoja agrara, Novi Sad: Feljton.

Popovic, S., Novakovic, S., Duranovic, D., Mijic, R., Grubljesic, Z, Anicic, J., & Majstorovic, A. (2017). Application of international accounting standard-16 in a public company with predominantly agricultural activities. *Economic Research-Ekonomska Istrazivanja*, 30(1), 1850–1864. https://doi.org/10.1080/1331677X.2017.1383171

Prusak, B. (2017). The accuracy of alternative stock valuation methods - the case of the Warsaw Stock Exchange. *Economic Research-Ekonomska Istrazivanja*, 30(1), 416–438, https://doi.org/10.1080/1331677X.2017.1305793

Quattrone, P. (2017). Embracing ambiguity in management controls and decision-making processes: On how to design data visualisations to prompt wise judgement. *Accounting and Business Research*, 47(5), 588–612. https://doi.org/10.1080/00014788.2017.1320842

Radovic, M., Vitomir, J., & Popovic, S. (2021). Impact of internal control in enterprises founded by local self-government units: the case of Republic of Serbia. *Inzinerine Ekonomika-Engineering Economics*, 2021, 32(1), 82–90. https://doi.org/10.5755/j01.ee.32.1.23243

Reginato, E., Fadda, I, & Paglietti, P. (2016). The Influence of Resistance to Change on Public-Sector Reform Implementation: The Case of Italian Municipalities' Internal Control System. *International Journal of Public Administration*, 39(12), 989–999. https://doi.org/10.1080/01900692.2015.1068325

Scalera, F. (2016). The Balkan area development: threats and opportunities for Italian companies' investment strategies. *International Journal of Business and Management*, 11(10), 37–50. https://doi.org/10.5539/ijbm.v11n10p37

Smith, K.(2000). A financial appraisal of public pension programmes in Lithuania and Estonia. *Baltic Journal of Economics*, 1(1), 9–26. https://doi.org/10.1080/1406099X.2000.10840371

Tett, G.(2019). 'Financial scandals: a historical overview': a practitioner view. *Accounting and Business Research*, 49(5), 500–502. https://doi.org/10.1080/00014788.2019.1611706

Vitomir, J., Tomas-Miskin, S., Ivic, M., & Popovic, S. (2020). Implementation of the tender by the municipal service administration from the aspect of management in the municipalities of the Republic of Serbia. *Lex Localis - Journal of Local Self-Government*, 8(3), 469–486. https://doi.org/10.4335/18.3.469-486(2020)

Wang, W. (2016). Exploring the determinants of network effectiveness: The case of neighborhood governance networks in Beijing. *Journal of Public Administration Research and Theory*, 26(2), 375–388. https://doi.org/10.1093/jopart/muv017

Wirth, P., Elis, V., Müller, B. & Yamamoto, K. (2016). Peripheralisation of Small Towns in Ger¬many and Japan - Dealing with Economic Decline and Population Loss. *Journal of Rural Studies*, 47, 62–75. https://doi.org/10.1016/j.jrurstud.2016.07.021

Wynen, J. & Verhoest, K. (2016). Internal Performance-Based Steering in Public Sector Organizations: Examining the Effect of Organizational Autonomy and External Result Control, *Public Performance & Management Review*, 39(3), 535–559. https://doi.org/10.1080/15309576.2015.1137769

Wysocka, M. (2021). Effect of Demographic Changes on the Labour Supply in Lithuania and Poland, *Inzinerine Ekonomika-Engineering Economics*, 32(1), 35–47. https://doi.org/10.5755/j01.ee.32.1.25087

Xie, W., Ye, C., Wang, T., & Shen, Q. (2020). M&A goodwill, information asymmetry and stock price crash risk, *Economic Research-Ekonomska Istrazivanja*, 33(1), 3385–3405. https://doi.org/10.1080/1331677X.2020.1773893

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