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Application of international accounting standard-16 in a public company with predominantly agricultural activities

Slobodan Popović^a, Srećko Novaković^b, Dragan Đuranović^b, Ranko Mijić^c, Željko Grublješić^d, Jugoslav Aničić^e  and Aleksandar Majstorović^e

^aDepartment of Finance, KP 'Gradsko Zelenilo' Novi Sad, Novi Sad, Serbia; ^bFaculty of Economics Subotica, Department of Management, University of Novi Sad, Subotica, Serbia; ^cDepartment of Management, College of Economics and Statistics Prijedor, Prijedor, Bosnia and Herzegovina; ^dDepartment of Management, Fund of the Republic of Serbian, Prijedor, Bosnia and Herzegovina; ^eDepartment of Management, University Union-Nikola Tesla, Beograd, Serbia

ABSTRACT

This work suggests the existence of a number of advantages for companies that have opted for the application of International Accounting Standards. Their application allows fair reporting, which is extremely important for countries in transition, as well as for those countries that have not applied IAS. The authors carried a study related to full application of IAS 16 to 114 companies, of which 10 are public and 104 other companies are from the wider area of Novi Sad, in the period 2010–2015. In addition, the study of the case of public companies is done in order to demonstrate the situation before and after the valuation of assets and equipment as at 30 June 2012. The state after 3 years is fairly shown on 30 June 2015, all in order to make valid conclusions regarding fair reporting of the public enterprises. It can be concluded that the application of IAS 16 has multiple benefits by companies that fully apply fair reporting in its operations.

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1. Introduction

The aim of this study is to investigate the effect of the application of International Accounting Standards, particularly IAS16, to the managing of a company. The public sector companies, specifically in the field of agriculture, operate in very specific conditions. Many factors affect the operations of these companies to be even more complex and more specific. Those specifics should be noticed for the purpose of establishing a system of monitoring of business activities through accountancy. This allows those companies to draw up true and fair financial statements in the widest sense. In addition, the professionalisation of work break autarchy of manufacturing companies and affects connectivity to global society (Popović, 2014a). Introduction of management accounting can improve management, in particular in public enterprises, by applying a functional cost control (Dražić-Lutitsky, Vašiček, &

CONTACT Slobodan Popović  slobodan.popovic49@gmail.com

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Vašiček, 2012). Large companies should take care about other things such as the values of important currencies and their changes in their financial statements, in order to get as real as possible reporting in their statements (Daniels, Radebaugh, & Sullivan, 2011). It is important to emphasise that the prerequisite of the financial statements is an unlimited business period, i.e., the primary goal is that the company will continue business operations in the foreseeable future (Greuning, 2006).

Financial statements should be prepared in conformity with generally accepted accounting principles or other rules (Soltani, 2009). International accounting standards envisage and allow the possibility of using more than one method to allow for the equitable financial reporting of assets managed by the company management (Wyatt, 2004). One of the most applied methods in developed economies is the evaluation of overall corporate assets using the fair value method, and the application of that method requires explanations in the footnotes of the financial statements. The authors of this study have thoroughly applied fair reporting in the case of the evaluation of corporate assets in use.

The company management combines various procedures while managing the company and they are conditioned by and very dependent on IT systems of the company (Flecher, 2003). Planning presents the primary phase of the management process, during which decisions are made depending on the strategies, policies and plans (Williams, 2010). Business operations can be seen as a process, as well as measurable activities, designed to produce specific results for specific customers (Davenport, 1993). The estimated value of the company, using International Accounting Standards, i.e., expressing total assets at fair values, may be seen during the sale of the company. In the widest context of consumer needs, it can be seen as every specific need and different authors point out primarily at heterogeneous consumers' needs that should be investigated (Coward & Goldsmith, 2007; Sproles & Kendall, 1986).

There are different methodologies in use for the assessment of a company's capital value, but it should be emphasized that there is no definition at all as to how the procedure should be performed, i.e., what will a certified appraiser use in his/her worktop to get the results of the assessment, which will be expressed in the opinion, delivered to the contractor, following contractual obligations. The appraisers independently define procedures they will apply (Leko, Vlahović, & Poznanić, 1997).

Estimating the value of the company, we should take into account all the costs of research and development, which is thoroughly supported and accepted by International Accounting Standards (Bolten, 2000). An important moment in the life of a company may be its merger with another company that may be of different size. In such cases, the market power of the new company is increased and the economy of the scale generates benefits (Seth, 1990). Before the merger of the companies, it is necessary to estimate the value of the property, assets in use and other things which may be subject to the contractual relations of two or more companies. Other authors as well emphasize that the evaluation should be done in the case of a merger of companies of unequal size (Bruton, Oviatt, & White, 1994).

The study of the authors is conceived as follows. In the introductory phase, there is a theoretical approach to the field of financial reporting, taking into account International Accounting Standards and grounds that are essential to the management to adopt and accept the method of valuation of assets in the company they run. The further analysis gives a basis for the adoption of methods of assessment of the companies. The study was conducted in a representative company in the Republic of Serbia and can be used as a model for practical

application in other companies. In the third phase, the authors provide concrete research evidence. Finally, the authors give in the form of practical conclusions the main results of the research from which stem the positive sides of fair valuing and practical application in companies.

2. Used material and methodology

The authors draw attention to the professional community of the importance of applying international accounting standards, particularly IAS 16,¹ in companies in transition countries, which is in accordance with legal provisions, such as the solutions² that we see in the country where the research was conducted, and which were presented in this paper by the authors.

The application of this standard ensures a safer enterprise management (Damodaran, 2007). In addition to that, the application of IAS 16 can also result in improvements in the pursuance of the adopted financial policy by the enterprise (Ivaniš, 2012; Veselinović & Vunjak, 2014). Realistic asset valuation stems also from the appreciation of the financial control of the public sector, the central government at first regulated with the duress and, later, the companies would have the opportunity to see the benefits on their business when they implement such management.

Based on the previous, it is clear that the primary objective of this study is pointing out to the general public the importance of the application of IAS 16 in enterprises. When it comes to IAS 16, an inseparable part is the application of the valuation and, in a broader sense, there are examples of practical observation foregoing (Veselinović, Vunjak, & Radakov, 2012), which strengthens the financial analysis (Rodić & Filipović, 2010) and total financial control (Miljković, 2006) that to the end of the year there should be another step of assurances that derives from international standards on auditing (Andrić, 1996) to facilitate the overall audit of financial statements (Ljutić, 2014a).

In this paper the authors point out the significance of application of fair valuation of enterprise assets. They used SWAT analysis³ in order to obtain a reliable assurance relating to the application of IAS 16 in enterprises in the Republic of Serbia in the period under consideration (2010-2015).

Another activity of the author referred to the fact that the five-year observation period (2010-2015) gathers as much information on the application of IAS 16 as the behavior of the public and other enterprises on that issue. For these reasons the authors carried out a survey of over 100 different companies, processed the results using the statistical package SPSS for Windows 17.0 and analyzed them with the aim of gaining credibility on the relevant conduct two mentioned categories of enterprises in the second largest city in the Republic of Serbia.

The third activity of the authors was to elaborate case studies of representative companies, with the aim of making assurances about the attitude of the public company in terms of application and the adoption of IAS 16 in the business books of the company and determining how it behaved in relation to possible improvements in overall governance of the use of application of IAS 16. To achieve this, the authors chose the company which was used as a representative, and that was done by several criteria.

The first criterion, on which the authors chose the company, was the classification of companies based on the size of the legal entity. In that regard, they acknowledge the generally

accepted views that the classification of the size of legal entities is performed for the following year upon submission of final accounts and financial statements of the Serbian Business Registers Agency.⁴ As the whole research was conducted on the territory of the Republic of Serbia, the important fact is that the Business Registers Agency is in the Republic of Serbia. For clarification of classification it should be noted that only companies perform sorting by size and by the time they completing the overall financial statements to the mentioned Agency. It must be in accordance with the criteria for the classification (income, assets and number of employees). More broadly, finance observation is vital for conducting business (Berberović & Jelić, 2005), in order to achieve the ascent medium enterprises (Pokrajac & Tomić, 2008), because the starting point of this study was the election of representatives - medium enterprises. Therefore, the authors concluded that it is important to develop the aforementioned companies, because a power of economy in transition depends on the existence and operation of a large number of medium-sized enterprises.

The second criterion that the authors relied on was the length and the continuous existence of the company. As this company has been operating since the mid-60 of the last century, this criterion which the authors set filled. Besides, the company owns the certainty of doing business in the future, or a high level of security that will operate in the coming years, as it has signed contracts with the City of Novi Sad (founder) on regular maintenance of green areas for 2016 and a signatory of the contract with the founder will also perform activities which are covered by the strategy of development of green spaces of the City of Novi Sad 2015–2030.⁵

The third criterion that the authors used was the existence of the basic activities of the company (agriculture), and the existence of other activities (such as catering and tourism, trade in agricultural products, construction and other services), in order to consider possible deviations related enterprises access to the valuation of assets which dispose, or how it treats virtually assets in the ledgers of selected representative company, because it significantly affects the establishment of financial control.⁶

In the results shown in part of the case study, the used data were already published in the paper (Popović, Grublješić, & Mijić, 2014). The authors point out that they used aggregate results of equipment valuation as a point of departure. In this paper, equipment is viewed from the aspect of a source of funding equipment addition. Actually, the paper presents equipment obtained from two sources, i.e. from own resources and founder's funds, or, more precisely, from the local self management budget.

All illustrations in this paper, referring to a case study or assessment of the value of equipment companies, are shown on the selected day, or on 30 June 2012. Displays are converted and displayed at the middle rate of the National Bank of Serbia on the day mentioned in the parity 1 EUR = 115.82037.⁷ The goals of the described results of the research were to gain a broader picture of the evaluation of all equipment companies. To display assets in a representative company we should mention the valuation date.

The authors collected relevant information that was available at the date of assessment and estimated by groups in accordance with current accounting policy of the company. In addition, it should be noted that there is no unique and the best model of evaluation, and international standards provide great flexibility in the choice of assessment methods and the most important criteria is the requirement that sets a specific case (Leko et al., 1997). The dominant equipment that a company has in this case study makes agricultural machinery (75%), followed by transport (19%) and other equipment (7%).

The estimate of equipment value makes sense if it is made in accordance with the accounting policy of a company. The accounting policy of a company is adopted by its management and it should be stressed that it is subject to changes. Changes in accounting policies may have an impact on the presentation of company assets (Majstorović, Popović, & Volf, 2015).

The objective of evaluating and application of IAS 16 should be understandability, relevance, reliability and comparability, in order to financial reporting would be of quality. Furthermore, assessment should be observed through the prism of IAS 16 as an asset, not as a kind of standard (Ljutić, 2014b), and the use of them improves information and transparency in business and financial company communication (Cantino, 2009).

3. Results of the research and analysis review of situation in the companies that have been apply IAS since 2010

In order to show more the general situation in the Republic of Serbia in the field of general conditions for the application of IAS, especially IAS 16, the authors presented their SWOT analysis of the situation that is characteristic for the period from 2010 to the present day, i.e., at the time of making corrections in the study, in June 2015. This is essentially the first stage in getting a comprehensive picture of the application of IAS in the enterprises of the Republic of Serbia.

Table 1 consists of: the available options, the noticed weaknesses, opportunities and threats which, are characteristic for the many companies, especially for public companies, founded by the local government.

3.1. Display of the results of the research of 114 companies during the period 2010 to 2012 in relation with the application of IAS 16 to its accounts

In the context of deepening the analysis of the application of the introduction of IAS in the enterprises, the authors made a questionnaire covering 114 companies. Located the companies in the City of Novi Sad, of which 10 were public companies, whose founder was the City of Novi Sad, and they covered about 53% of that type of company in Novi Sad for the observation period from June 2010 to June 2012, as well as 110 companies with a different ownership structure and which are often referred as 'other companies', with the main goal to obtain real results, related to the conclusions about the behaviour of different types of companies regarding the introduction of IAS.

The main objectives of the authors who carried out the tests was to get valid answers regarding the issue of implementing IAS, in particular IAS 16, in the books of the company over the next three years, and potential answers ranged from companies that wanted and intended to fully implement and use IAS in their companies in the future, if they wanted to do it partly and those that did not want to do it. All answers within those 3 years of observation were given by the financial managers and chief financial officers, which strengthens the views and conclusions the authors made in this study.

Thus, the authors started from the basic assumption that the two large groups of companies, in our case the public and other companies in Serbia, conduct differently in terms of the application of IAS-16. The next assumption is related to the particular conduct of the public and other companies within the selected period of observation in relation to the

Table 1. SWOT analysis of the situation in the Serbian companies that apply IAS in order to reach the result of 'fair value' in the period since 2010.

Available options	Weaknesses
<ul style="list-style-type: none"> • The existence of positive legal regulations adopted by the state authorities. • Existence of positive attitudes of the external audits regarding the companies implementing IAS. • Internal audits' favouring procedures that reinforce standardisation procedures in conducting financial records. • Many decades long tradition in the application of the adopted accounting policy by the highest authorities. 	<ul style="list-style-type: none"> • The lack of complete information about the importance of IAS, especially for small companies. • The lack of interest of local governments to sufficiently increase the operational reliability of the companies, usually founded by the local governments. • Insufficient interest of the local utility company for standardisation of the financial reporting to the local government, because they behave comfortably, getting huge funds from the budget of the local government • Common changing of responsible managers by the local government, but in general there is a discontinuity regarding the knowledge of already established procedures and standards.
Chances	Threats
<ul style="list-style-type: none"> • Increasing the degree of alignment with the business practices of EU countries. • Increasing security in the activities of the professional staff in companies that applied IAS in their business records. • The implementation of IAS increases and strengthens state institutions, especially in the field of financial reporting. • It facilitates the activities of the international companies that are present in the Republic of Serbia, especially in the field of financial reporting. • To increase new Greenfield investments, because there is a greater degree of unification of the total business operations. 	<ul style="list-style-type: none"> • The negative impact of certain legal provisions in the field of finance and regarding a number of companies, especially those established by the local government, also the laws made by the local government. • The increase in property taxes, which are the responsibility of the local governments, which directly affects the companies not to implement fair value because the increasing of the fair-valued assets means increasing tax expenditures, especially property taxes.

Source: Authors' calculation.

practical application of IAS 16 to their books. The last essential starting point is the conduct of the selected representative public company, i.e. the case study.

In order to show the results of the survey of 114 companies, the authors processed the data and analyzed it using the SPSS statistical package for Windows 17.0. As for the statistical techniques, descriptive statistics measures and the non-parametric Mann-Whitney test were used.

In Table No. 2 the authors presented the obtained results in the form of three gradations of application of IAS 16 in the companies during the selected observation period.

It is already obvious on the basis of Table 2 that there are a growing number of companies that fully apply IAS 16, so the percentage rose from the start at 11.4% in 2010 to 21.9% in 2011, and in 2012 that number was 28.9%, which is a notable increase of companies that fully apply IAS-16. In the segment of the companies that partially apply IAS 16 you can see the increase of such companies, from about 32% in 2010, that percentage grows in the following years and now it is greater than 50%. Also, the percentage of the companies that do not apply IAS 16 has been continuously decreasing from about 56% to about 19% of such companies in 2012.

The authors' deepening interests went further in line with the presented objectives and it is practically referred to in the next step regarding determination of differences in the

Table 2. Application of IAS 16 in all 114 companies within the period 2010–2012.

Companies	2010		2011		2012	
	<i>F</i>	%	<i>F</i>	%	<i>F</i>	%
Apply IAS 16	13	11.4	25	21.9	33	28.9
Partially apply IAS 16	37	32.5	63	55.3	59	51.8
Do not apply IAS 16	64	56.1	26	22.8	22	19.3
Total number of companies	114	100	114	100	114	100

Source: Authors' calculation.

Table 3. Overview of public and other companies in the application of IAS 16.

Type of company	Application XY	2010		2011		2012	
		<i>F</i>	%	<i>F</i>	%	<i>F</i>	%
Public companies	Apply IAS 16	3	30	7	70	8	80
	Partially apply IAS 16	2	20	2	20	1	10
	Do not apply IAS 16	5	50	1	10	1	10
	Total number of public companies	10	9.6	18	7.3	25	24
Other companies	Apply IAS 16	10	9.6	18	17.3	25	24
	Partially apply IAS 16	35	33.7	61	58.7	58	55.8
	Do not apply IAS 16	59	56.7	25	24	21	20.2
	Total number of other companies	104	100	104	100	104	100

Source: Authors' calculation.

conduct of the 'public and other companies' from the aspect of the application within the reporting period. The display is presented in Table 3.

Taking into account the division between the public and other companies, even in the first gradation regarding the companies that apply IAS 16, it can be seen that there is an increasing number of companies of one or another form that apply IAS 16, albeit unevenly, because there is a much faster growing number of the public companies that apply IAS 16 and, at the end of 2012, that percentage was 80% for this type of the company is comparison with the others, whose percentage was 24%. At the end of that year, the companies that partially apply IAS 16 differ again, and the percentage of public companies is 10%, while for the other companies the percentage is 55.8%. At the end of 2012 the percentage of the public companies that do not apply IAS 16 was 10%, and the percentage of the other companies was two times larger, i.e. 20.2%.

Generally, the display of the results in the Table 3 clearly shows that there is a big difference in the application of IAS 16, in favour of the public companies, and the other displays just clarify it.

The authors made further deepening of the analysis regarding the application of the actual implementation of IAS 16 amongst the companies by using the Mann-Whitney test and the obtained results for the monitoring period are presented in Table No. 4.

In order to examine if there are differences in the use of the standard between public and other companies during the period from 2010 to 2012, we conducted the Mann-Whitney test. The authors chose the Mann-Whitney test (Mann & Whitney, 1947), which is a statistical test that compares two independent groups and tests if there are statistically significant differences among them, which in fact was the essential commitment to test the conduct of public and other companies. As a non-parametric alternative to the *t*-test, the test compares the medians of those two groups. Due to the nature of the research topic (a

limited number of public companies), the sample of public companies is relatively small (= 10). Since the prerequisites for the use of the parametric tests were not fulfilled, we used the non-parametric alternatives.

There are also limitations regarding the ratio of the companies in the second group (other companies = 104) and the group of public companies. However, as noted, the sample of the public companies could not be expanded. The non-parametric techniques and in particular the Mann-Whitney test solves the problem of unequal distribution in the groups in a way that it does not work on raw scores, but it turns them into rankings. The table shows the average ranks and sum of ranks for both groups of companies. In the case when the sample size is large (in our case a large number of companies in the group of other companies), the authors were forced to calculate the z -approximation.

Thus, the authors, using the test, essentially checked whether the two groups of companies conduct the application of IAS 16 the same way (the starting point was that there were no differences between the groups of public and other companies). It is well known that if we get the result that the value and significance of the test (p is less than or equal to 0.05) it denies the initial starting point that there is no difference between the public and other companies regarding the implementation of IAS 16, i.e. we conclude that there are differences between the mentioned groups regarding the practical application of IAS 16 in the business books of the public and other companies.

In our case, the dependent variable of the IAS 16 application takes a value from 1 to 3, where 1 means a full implementation of IAS 16, 2 means a partial implementation in the use of IAS-16 and 3 means non-application of IAS 16 in the business books of the company. That means that a group of companies with the lower score (Md-median), as well as with average ranks is the group of companies that applies IAS 16 more in its operations.

After using the Mann-Whitney test, the obtained results for 2011 ($In = 251.500$, $Z = -2990$, $p = 0.003$) and 2012 ($In = 247500$, $Z = -2996$, $p = 0.003$) pointed out the significant differences between 'public' and 'other companies'. Also, using this test in 2010, the obtained results did not show a big difference between 'public' and 'other companies' regarding the application of IAS-16.

In the last column of Table 4, the authors presented p -values, i.e. the results obtained in the said column refer to the values that are moving within the probable 'statistical significance limits'. Also, the level of significance $p \leq 0.05$ indicates that there is a 5% probability that the authors made a mistake in their claims presented in this study. Therefore, the authors point out with 95% certainty that in 2010 there were no differences in the application of IAS 16 between 'public' and 'other companies' ($p = 0.382$), but also point out that, in 2011 ($p = 0.003$) and 2012 ($p = 0.003$), there were significant differences in the application and the use of IAS 16 between the 'public' and 'other companies'. Looking at both types of companies, we

Table 4. The differences in the use of IAS 16 between public and other companies.

Year of monitoring	Type of company	Median	Mean Rank	Sum of Ranks	Mann-Whitney U	Z	p
2010	Public $n = 10$	2:50	49.75	497.50	442.500	-0.875	0.382
	Oother $n = 104$	3:00	58.25	6057.50			
2011	Public $n = 10$	1:00	30.65	306.50	251,500	-2990	0.003
	Other $n = 104$	2:00	60.08	6248.50			
2012	Public $n = 10$	1:00	30.25	302.50	247500	-2996	0.003
	Other $n = 104$	2:00	60.12	6252.50			

Source: Authors' calculation.

see that the average 'public companies' mainly applied IAS 16 (MD = 1) in 2011 and 2012, and the 'other companies' only applied IAS 16 partly in its operations (MD = 2).

Therefore, the conclusion which the authors reached through these analyses is that, in 2010, the public and other businesses did not differ in the use of the application of IAS 16, while in 2011 and 2012, the public companies used the application of IAS 16 (almost completely), and other companies only partially applied IAS 16 in their accounts and operations.

The conclusions that are presented in the previously conducted research on 114 companies, indicate the visible differences between the practical introduction of IAS 16 in public and other businesses. In the first years of the study (2010), aspiration for fully introduction of IAS 16 in public companies was about 30%. Two years later, that percentage rises to about 80%, which indicates the intention of management to practically introduce IAS 16 in the regular course of business enterprises administered. Other companies in the same period of observation had different results related to the practical introduction of IAS 16. In the first year, the 'other companies' accounted for around 10% of companies who wanted a full introduction of IAS 16 in its operations, which is three times worse in comparison with public companies three times worse. After two years at the 'other companies' need for the introduction of IAS 16 has grown, to almost 1/4, which evidently shows that the mentioned 'other companies' wanted to introduce IAS 16. However, these results are much more modest in comparison with the public enterprises observed in the same period of time, which is related to the introduction of real financial valuation of property and equipment.

3.2. Case study of the selected public utility company

In the previous part of this paper, the results clearly show that public companies in Serbia have much more expressed intention and desire of so-called 'other companies' to introduce the practical application of IAS 16 in its normal course of business. For these reasons, the authors decided that, as part of the acquisition of the overall picture of the application of IAS 16 provide an overview of practical events in a representing public-utility company when it comes to IAS 16. To view the of the case study the authors chose a public company that has successfully operates continuously from the moment of its establishment, i.e. 11.24.1962 until mid-2016. More precisely, the authors state that the representative company is a medium-sized company, with over 300 full-time employees, and witch achieved positive results. Accordingly, a case study was carried out in a public utility Services Company with major operations in agriculture and maintenance of green public areas of local government. The company belongs to the group of public utility companies of the Republic of Serbia, more precisely speaking, the local self-government of the city of Novi Sad, (something more: in the Official Journal of the City of Novi Sad under number 53/2008).⁸

The presented results in the context of case studies of the selected public companies are real and received by the top management of the company. Values of equipment of the companies are obtained in the national currency, but then the authors converted the amount of all equipment of public enterprises into Euros, on the valuation date, according to the mean rate of the National Bank of Serbia. Conversion was done to clearer displays estimates of individual equipment and the value of equipment within the group (agricultural, transport and other equipment) in which the equipment is classified in the business books of the company to the broader scientific community.

A case study is presented in the form of three presentations of evaluation results after the rating as follows:

- over most general display, or display the company's assets before and after evaluation (expressed in value in Euros), in Table 5,
- over the display value of the entire equipment of a company that are grouped into three large piece of equipment (agricultural, transport and other equipment), in Table 6, and
- and over the display of individual valuation of agricultural equipment with the use of IAS 16, in Table 7.

The most general representation of all property companies, nominally expressed before and after estimation in EUR, is given in Table 5.

Based on the presentation of Table 5 it could clearly be seen that the value of buildings and equipment before accounting estimates was expressed was about 2.1 million euros, and, after the assessment of the application of IAS 16, this same property was worth slightly more than 1 million euros. The first conclusion is essential for making any management decisions in the future. The deviation is great after valuation, because the accounting valuation of property and equipment before and after the rating of assessment deviates nominal terms over 1 million euros or in percentage around 50%. The authors continued research by monitoring the behavior management of a public company in terms of the introduction in business books of IAS 16 in the next three-year period. Thus, the authors of the work established that the mentioned company, even after three years, and on the day of 30 June 2015. did not introduce estimated assets of the company in their books at 30 June 2012.

Therefore, the results that are stemming from the case studies are poor in terms of the introduction of the fair value of property and equipment. The authors emphasise this observation in the form of a conclusion, because IAS 16 recommends that the valuation of the property and equipment on their websites is done every three years, noting that, for some specific equipment, such as computer equipment, applies recommendations are applied that the assessment can be performed more frequently, respectively in the shortest period of time.

The following display refers to the representation of the structure of the equipment after an assessment on the principle of fair value by using IAS 16. The structure of equipment refers to three groups: agricultural equipment, transport and other equipment enterprises. The display of the results of the evaluation of all equipment after evaluation authors give in Table 6.

Making further analysis, in table No. 6 the authors made a presentation of research results and provided the basic structure of the equipment after assessment by grouping it into three main parts:

Table 5. Results of research related to the valuation of real estate and equipment of the company.

Ordinal No.	Bookkeeping value of the company before assessment (A) in EUR	The structure of the results obtained after assessment	The value of the company after assessment (B) in EUR	The obtained difference, increase of the value after the evaluation (B-A) in EUR
1.		Company's real estate	2.052.453,22	
2.		Company's equipment	1.104.224,43	
Total	2.105.040,56		3.156.677,65	1.051.637,09

Source: Authors' calculation.

Table 6. Results of evaluation of all equipment of enterprises after the application of IAS 16.

Ordinal number	The structure of the equipment after assessment	Value of the equipment after applying IAS 16 and valuation of the equipment in EUR	Participation of the most important company equipment in % compared to the total value of equipment
1.	Agricultural equipment	817.464,71	74.03
2.	Transport equipment	207.937,68	18.83
3.	Other equipment	78.822,03	7.14
Total		1.104.224,43	100

Source: Authors' calculation.

Table 7. Presentation of evaluation of agricultural equipment after evaluation with application of IAS 16.

	No.	Name of equipment	Estimated current	A	B	C
			value on 30 June 2012 in EUR			
Production and agricultural equipment purchased by the founder's subsidy	1.	Self-propelled rotary mower I MT	3.370,92	0,86		0,40
	2.	Tractor TT-830	20.802,57	5,46		2,54
	3.	Tractor Belarus 1025	6.615,01	1,74		0,81
	4.	Multipurpose utility tool	43.296,05	11,37		5,30
	5.	Self-propelled rotary mower IMT	4.669,68	1,23		0,57
	6.	JBC excavator-loader	38.853,29	10,20		4,75
	7.	Tank truck IVEKO	38.853,29	10,20		4,75
	8.	Other production and agricultural equipment	224.487,27	58,94		27,46
Production and agricultural equipment purchased from own resources of the company	I	380.848,09	100		46,59	
	9.	Tractor Torpedo TD-7	863.40		0,20	0,11
	10.	Equipment for watering of system	18.478,93		4,23	
	11.	Equipment for watering	866,23		0,20	2,26
	12.	Watering system DK	86.746,19		19,87	0,11
	13.	The compact self-propelled machine	15.541,31		3,56	1,90
	14.	Jardinière	21.576,52		4,94	2,64
II	Other equipment	292.543,99		67,00	35,79	
	II	436.616,61		100	53,41	
	TOTAL (I+II)	817.464,71			100 (I+II)	

A = The participation of each piece of equipment in % compared to the procured equipment from subsidies.

B = The participation of each piece of equipment in % compared to the procured equipment from its own resources.

C = The participation of each piece of equipment in % compared to the total procured equipment.

Source: Authors' calculation.

- Agricultural equipment, that participates in the value of newly estimated value of the equipment mostly, with 74%
- Then transport equipment, which participates in the value of newly estimated equipment value, with nearly 19%, and
- Other equipment involved in the value of newly estimated equipment, with the estimated value of around 7%.

The equipment that, according to the newly estimated value, had the highest value of 74%, was further analyzed and the results are presented in Table 7. Since that is a specific company, i.e., the public utility company, founded by the City of Novi Sad, the authors made a further step of research, so they had established sources of supply of agricultural equipment. On this basis, it was found that the agricultural equipment was procured thanks to subsidies by the City of Novi Sad, which had a value of about 47%, after assessment, and the value of its own resources after the evaluation was about 53%. This is very important to discover the structure of the origin of equipment in the company. It was significant assistance on the occasion of purchasing means, in this case agricultural equipment, when someone assists purchasing with a subsidiary amount, i.e. with no charge. The companies that perform market business have no possibility of purchasing equipment from subsidies. Supply of subsidised equipment is a privilege of public companies in the Republic of Serbia.

Single-image evaluation of the most represented equipment in this company and agricultural equipment authors presented in Table 7. The authors point out that a review of agricultural equipment after the evaluation is given in Table 7, so that its display was reduced to the level of individually purchased agricultural equipment. IAS 16 does not oblige the appraiser to highlight the source from which the company bought the equipment. However, the authors gave such a display, because they wanted to draw the attention of the professional community to the fact that it is a very specific company, i.e. a the public company, and that it is useful to show the structure of the sources of procurement of agricultural equipment which is dominant in the agricultural company and which accounts for about 2/3 of the total estimated value of new equipment.

As a result of such intentions the first column presents the purchased equipment from the subsidy, i.e. of the founders of the company and from its own funds companies that are essentially the result of the activities of business. In the last column, the authors show the percentage ratio of the value of equipment in relation to the total value of equipment valued companies.

After the presentation in Table 7 we can draw basic conclusions regarding the value of the equipment of public enterprises shown in the work of case studies.

The first conclusion would be that the public company purchased or acquired agricultural equipment with almost 60% of the funds that come from subsidies founders. It is a privilege in relation to other companies that do not have this option, as the source of procurement of fixed assets used subsidies to local governments or through state budget.

The second conclusion follows from the foregoing, and it would be that there is no equality in the operation of enterprises according to ownership. The 'other companies' are not eligible to receive funds from the budget and, such, in this way purchase equipment necessary for operations.

The third conclusion arises from the above two. The founder, respectively in the case study local government, should establish mechanisms that will control the public enterprises founded. The aim of these activities should be checking the use of entrusted funds public company. Besides the founder of a public company should provide mechanisms for mandatory application of IAS 16, so that at any time the value of assets used by public companies would be as realistic as possible. Displays of business and the value of the assets of a public company are publicly available and must be available to the public at the request of citizens, as they are pulled through the budget of its resources for the work of public enterprises. Therefore, it can be concluded that IAS 16 and its practical use means

increased operational safety management, but also that the application of IAS 16 means the real value of the equipment is shown in the business books of public companies. In addition, the application of IAS is universal and gives positive effects and benefits, and the 'other businesses' are slowly but surely starting to apply IAS in their operations.

A case study was conducted on the basis of data obtained from a specific public company. It dominantly operates in the field of agriculture, and it is logical that the previously mentioned public utility company owns 2/3 of equipment in the form of agricultural equipment. The one of the main starting points was that the authors incorporate valuation of agricultural equipment and implements through the same observation of three mentioned layers of observation, in order to get the answer related to importance of application of IAS 16, especially in the public sector. Key equipment and agricultural machinery in these companies in transition countries also has the largest deviation between the current value at which the water in the books of the value generated by the assessment 'model of fair value and use of IAS 16'. Thus, the presented views reached by the authors were created in real business, real companies, and illustrations in the last three tables of this study reinforce the previously disclosed.

4. Conclusion

The economy of many countries is built by a very heterogeneous enterprise. They differ in many properties. One of the main divisions related to observation is the ownership of the firm, and on this criterion division between public and other companies could be made.

In this paper authors started from that approach and observed the behaviour of the public and other companies in the 5-year period 2010–2015 in relation to the real intention of the introduction of IAS 16 in their business. The first reason is that the transition, of mainly former socialist countries over the last two decades, have performed accelerated privatisation of its formerly large state-SOEs. Within the observation of IAS 16 in the public sector the increasing desire of management to really introduce a fair evaluation could also be seen. The introduction of IAS 16 in the public sector is associated with important events or the Republic of Serbia signed chapter 32 of the EU in December 2015, which is committed to the financial control and audit of all budget users and, therefore, the public companies.

The research results cover the period of five years (2010–2015). The study was started by using SWOT analysis, aiming at presenting the basic impact related to full implementation of IAS 16 in the real functioning of the economy. The authors deepened research related to fair value through the statistical analysis of data obtained from the management of 114 companies, from the territory of the second largest city in the Republic of Serbia. The aim was to obtain credible results which will be used to determine the existence of possible differences in the application of full use of IAS 16 between public companies and other enterprises. After statistical analysis with a large degree of certainty of 95% it could be concluded that, in 2010, between the public and other companies there was a big difference in the application of IAS 16. In the period 2011–2012, there was a very important difference between the application of IAS 16 in the two above-mentioned forms of enterprise organisation. In addition to these conclusions it should be noted last fact arising after the statistical analysis; that is, that the public on their websites much more interested in the introduction of IAS-16 on their websites.

The research in the last phase included a specific company and the case study was done with the aim of monitoring the behaviour of the public companies related to valuation of assets and equipment with which the company operates. Results indicate that the deviation of carrying amounts of assets and equipment in relation to day of evaluation is very high and it is about 50%. The research continued monitoring of the behaviour of companies with regard to the introduction of the results of assessment in business books. Obtained results are extremely poor, because, even after three years, on 30 June 2015, the company did not introduce the evident difference in value of assets and equipment in their books. With this work the authors emphasise the importance and benefits of using IAS 16 and with certainty point out that its application can achieve many benefits for all companies.

Notes

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ORCID

Jugoslav Aničić  <http://orcid.org/0000-0003-3467-7071>

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